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DAILY DIGEST

Prepared in the Press Service, Office of Information, U. S. Department of Agriculture to present items of interest to agriculture and to agricultural workers. Views and opinions in these items are not necessarily approved by the Department.

Vol. LXXI, No. 41

Section 1

November 30, 1938

PAN-AMERICAN COOPERATION

A vast program of cultural and economic cooperation between the United States and all the other American republics was announced by this country last night, says a report in the Washington Post. It calls for activities as varied as cooperation in radio, aviation and highway development, stimulation of travel, lending experts to and training students and technicians from other countries, exchange of films and literature, and public health measures. The new program, involving 13 United States Government departments and agencies, was announced through the State Department by the President's Inter-Departmental Committee on Cooperation with the American Republics.

HIGHWAY SAFETY

Night blindness, frequently used as an excuse in after-dark traffic accidents, is the result of multiple factors, according to delegates to the meeting yesterday of the Highway Research Board of the National Research Council. Based on detailed reports from many states, the subcommittee studying the causes of night accidents attributed night blindness to vitamin A deficiency, increasing age, fatigue, partial intoxication and certain forms of physical infirmities. Elimination of billboards and outdoor advertising along highways was advocated at the meeting. Outdoor advertising is unsightly and a traffic hazard, declared P. H. Elwood, professor of landscape architecture at Iowa University. (Washington Star.)

CHAMPION STEER

The highest livestock award of the international livestock exposition was won yesterday by Irene Brown, 15-year-old high school girl with an Aberdeen-Angus steer she bought in January for \$60. The Aledo (Ill.) girl led Mercer, her 21-months-old, 1,133-pound steer into the show ring, and after examination, William J. Cumber, expert judge from Theale, England, named her entry as the grand champion steer of the show. Miss Brown estimated that Mercer had won about \$900 in prize money. Her investment in the steer amounted to about \$160, including purchase price and feed. (A.P.)

WELFARE EXHIBIT

The second annual art and hobby exhibition of the Civil Service Commission Welfare Association opened yesterday. The exhibition is on the second floor of the Commission Building, F and G Streets NW (Washington) and will remain open until 10 p.m. today. The closing date is December 2. (Washington Post.)

Traffic Standards How to coordinate work on highway traffic standards is the job of a new committee of the American Standards Association. Its main immediate tasks are: revision of safety code for colors for traffic signals; revision of standards for traffic control devices; and development of standards for motor vehicle inspection. It will also deal with special requirements for safety glass for both trucks and buses; specifications for highway guard rails; special barriers designed for drawbridges and railroad crossings; and uniform driver qualifications and tests. (Business Week, November 26.)

Organic Chemistry Chemists from seven Virginia colleges and universities have already completed 180,000 tests on organic chemicals in a vast study of this important field of chemical science, says a Science Service report. Objective of the project is to find organic chemical reactions which are suitable for research in inorganic chemistry. More than 1,200 compounds have already been studied with 150 tests performed on each one. For each case a relationship is being sought between the molecular structure of the organic compound and its reaction. The project is under the supervision of Dr. John H. Yoe, professor of chemistry at the University of Virginia.

N.C. Farm for Youth North Carolina is sponsoring an experimental innovation in vocational education through the planned early opening of the Robin Hood Farms, near Pinhurst, where boys and girls from every county in the State will receive free training in practical farming and domestic science in an effort to give worthy but underprivileged youths an opportunity to become self-supporting citizens. The project has the endorsement of the North Carolina Federation of Women's Clubs, the North Carolina Division, United Daughters of the Confederacy; North Carolina Colonial Dame chairmen, American Legion Auxiliary units and many other organizations. (Press.)

River Grain Export Record The river shipping season in Iowa, which closed this month, saw the largest amount of grain ever transported by water for export throughout the world. When the last bargeload of shelled corn was loaded and navigation closed on the river for the season, an estimated 10 million bushels of grain, mostly corn, had been sent on its way down the Mississippi river to New Orleans, La., to be loaded on ocean-going vessels bound for European ports. This export trade set a record which may stand for some time to come. The season was marked by a stiffening of demand and hardening of prices that probably averted a far more serious price collapse than actually took place as Iowa and Illinois farmers harvested a bumper 1938 corn crop on the heels of the record crop in 1937. (Des Moines Register, November 20.)

Science by Radio Dr. F. R. Moulton, Secretary of the A.A.A.S., is author of a short article, "Science by Radio," in Scientific Monthly (December). He says a questionnaire was sent out regarding the association's broadcasts, "Science on the March". "Among the many interesting facts contained in a summary of the questionnaires," he says, "the most significant is that more than 60 percent of the persons reporting listened to the broadcasts with family and friends. These were more than casual family gatherings, for in more than 51 percent of the cases the broadcasts were discussed in the homes of the listeners. Indeed, in about 13 percent the printed scripts were later read aloud. It is doubtful whether there is any more satisfactory form of general education than free and informal discussions around the family fireside without any compulsion or even the formalities that are necessary in schools. Many of the applications of science tend to weaken family ties; perhaps the radio can be made a very important force in restoring them and raising them to a higher level....Of similar import is the fact that nearly 28 percent of those reporting use the printed scripts in science clubs, schools and scout meetings, and that more than 31 percent discuss the broadcasts in clubs, schools and churches. Consequently, these experiments make it clear that broadcasts may help not only to unify the family but also to integrate community life."

Textiles and Chemistry "The many new and distinct synthetic fibers that have been introduced during the past few months indicate that the textile industry is again entering an era of rapid and profound change in manufacturing and marketing methods," says an editorial in the New York Journal of Commerce (November 19). "It is safe to predict that before many years elapse the industry will present an entirely different appearance, as cotton, wool and silk meet stiffer competition from the products of chemical laboratories. Indicative of this transition is the growing importance of technicians and research workers, who long played a subordinate role in the textile industry but who now contribute more than the master spinners and weavers themselves...Of late, rayon plants have been perfecting yarns that possess characteristics of wool, to compete with all-wool products. Up to a few months ago, staple fiber and yarns with a casein base were widely used for this purpose, but in the last few weeks acetate producers have brought out 'discontinuous filament yarns' which are produced in much the same manner as the straight filament yarns, but with a different appearance. Progress has been made also in developing yarns intended to supplant silk in making full-fashioned hosiery. Of more importance to the trade, however, is the fact that these same yarns can be utilized in a wide variety of industrial uses and supplant cotton for insulating purposes. It is noteworthy also that glass fibers are being used for wiring insulation to an increasing extent, and that an attempt is being made to get them accepted by manufacturers of automobiles. All of these new products had their origin in the chemical industry...The textile industry has become more dependent upon chemical research than ever before."

Canadian Chemurgic Committee In an effort to rid Canada eventually of her wheat surpluses, Canadian industry and agriculture have joined in an appeal to men of science to find new uses for farm products, particularly wheat, says a Toronto report in the Winnipeg Free Press (November 22). Business men, farmers, and research workers voted to set up a national chemurgic committee of 23 men to study existing research facilities and report to another forum in 1939. The committee was established in the hope it will assist in the development of wider markets for farm products and their surpluses, contribute to the real wealth and well-being of the Canadian people and expand the individual and national income. In addition to study of industrial uses for wheat, the by-products of fruit, vegetables, field grains and other produce will be studied by research workers and their results passed on to agriculturists and industrialists alike.

Junior Farm Bureaus W. R. Ogg, author of "Youth and the Farm Bureau" in the Nation's Agriculture (December) says that there is need to bridge the gap between participation in the 4-H clubs and Future Farmer clubs and participation in the Farm Bureau. "To meet this need," he says, "our Farm Bureau organizations in a number of states are developing a definite organized program for older youth--a well-balanced program of education, recreation and leadership training, to be planned and carried out by the young people with the counsel and aid of the adult organization...Methods of carrying out this program differ considerably in various states. In some states definite organizations known as Junior Farm Bureaus or Rural Youth Clubs are set up under the sponsorship of the county Farm Bureaus. In other states young people's departments of adult organizations have been established to sponsor special youth activities. Among the specific projects and activities the following may be cited as illustrative of the work being carried out; development of a definite program of projects by the youth with the advice of adult counsellors, development of regular meetings of youth with well-balanced programs, participation of youth in meetings of adult organization, leadership training conferences (county, district, state, regional and national), youth camps for recreation and leadership training, study courses, discussion groups and forums, drama, music festivals and group music development, social activities, vocational training, radio programs, sport festivals (in Illinois in 1937, over 3,000 participated and 25,000 people attended) and many other activities..."

Citrus Market Promotion A group of leading citrus growers and handlers have agreed to place the industry's drive for new markets in the hands of an 18-member committee. They said committee-men would be named to represent growers, shippers, wholesalers and retailers. It will be called the National Citrus Merchandising Committee. The retail group, which voted to seek a reduction in consumer prices of oranges and grapefruit, suggested also an "industry-wide committee be established to explore the markets for citrus fruits to ascertain areas where per capita consumption is low and that plans be formulated to develop the markets and increase per capita consumption." (Florida Times-Union, November 23.)

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Vol. LXXI, No. 42

Section 1

December 1, 1938

HIGHWAYS REPORT

Officials of the Bureau of Public Roads said yesterday they expected to have ready by February 1 a report on a national system of superhighways. The report, which the last Congress called for, is on the feasibility of undertaking three high-speed transcontinental east-west highways to be financed, at least partially, by tolls, and three extending north and south. The report will contain comprehensive traffic estimates and expert opinion on methods of finance. (Associated Press.)

RAIL EMBARGO ON LIVESTOCK

Railroads placed an embargo on shipments of livestock to the strike-bound market at the Chicago stockyards yesterday, says an Associated Press report. The action was announced by E. L. Kemp, representative of the rail lines at the yards, at the end of the tenth day of a dispute that has halted normal operations at the huge trade center. He explained the carriers would refuse to accept meat animals consigned to commission men who act as sales agents at the yards for farmers of the midwest, but that they would continue to transport cattle, sheep and hogs sent directly to packing houses at Chicago.

FOREIGN TRADE CONCESSIONS

Consideration will be given to providing additional tariff concessions to Cuba on sugar, tobacco and tobacco products, potatoes and rum in a reciprocal trade agreement supplemental to that of August 24, 1934, according to the State Department. "Only a limited supplemental agreement is contemplated," the department said yesterday. "There will be no general revision of the schedules of concessions provided in the existing agreement, and no increases in the guaranteed percentages of preference in tariff rates will be made." (New York Times.)

Ecuador's control board has established a quota of \$2,500,000 to cover permits for imports from the United States, according to a dispatch to the newspaper Universo in Panama. Most of the permits will be for flour. (New York Times.)

A Hamilton (Bermuda) report to the Times says the Assembly Finance Committee outlined yesterday the reductions of imperial preference necessitated by the United States-British trade pact. Electrical products, hardware, certain canned goods and flour are the principal items affected. The reductions will benefit the United States, especially those on electrical products and canned goods.

Gas Tax
Diversion

The Texas Weekly (November 26) reviews the annual report of the American Petroleum Industries Committee. Discussing the diversion of gasoline taxes, it says: "Different states have arrived at different answers to the question. Opponents of such diversion in several States have advocated the erection of constitutional barriers against diverting the gasoline tax funds. The American Petroleum Industries Committee reports that sentiment in favor of this method of preventing diversion is spreading. In the recent general election, constitutional amendments prohibiting diversion of gasoline tax revenues were approved by the voters of Alabama, California, New Hampshire, and Michigan. These safeguards already are possessed by Missouri, Minnesota, Colorado, and Kansas; and the Committee reports that in Indiana and Nevada the initial steps toward adoption of such constitutional amendments have been taken, although further legislative action will be required before the proposed amendments can be submitted to the people. Preliminary action, preparatory to the framing of similar amendments, is said to have been initiated also in Iowa, North Carolina, and North Dakota. Evidently there is a growing sentiment among the people that money from gasoline taxes should be used solely for building new highways and maintaining old highways..."

Cooperative
Farm Credit

The leading article in the Country Home Magazine (December) is "We Don't Want Pensions" by W. I. Myers, recently governor of the Farm Credit Administration. He advocates "a cooperative, self-supporting credit system, owned by American farmers." He describes loans under the FCA and says: "We have constantly worked to decentralize the setup--to make Washington less important and the local borrowing units more important. That is, make this a real cooperative system owned and run by farmers...One thing the farmer has received as an emergency measure--direct government subsidy--should not be permanent. To own his credit machinery, the farmer must ultimately pay back what the government has put into it. Direct subsidies were probably justified as an emergency measure. Permanent subsidies are unwise and endanger the continued existence of a cooperative credit system. When conditions improve, provision should be made for an orderly tapering off of interest subsidies. Make no mistake about it--when we farmers accept money at lower rates than the investment market warrants, we are not really getting a gift. We must pay for it and, in this case, we are paying double. We pay for it in taxes and in prices, and we pay for it in self-reliance and independence. The United States has been loaning money on character, the character of the American farmer. The government's confidence in him has been amply justified. I have this further confidence in his character--that he is going to stand on his own feet and say emphatically: Cut out the subsidy!"

Nutrition in Public Health The Journal of Home Economics (December) contains a paper by Frank G. Boudreau, executive director of the Millbank Memorial Fund, in which he discusses the co-ordination of research in home economics with public health in the field of nutrition. "The attempt to apply for public benefit recent advances in our knowledge of nutrition is at present largely the work of home economists, many of them well trained in nutrition, who are connected with state departments of agriculture, land-grant colleges, experiment stations, and extension services," he says. "It is gratifying to learn that some of these workers have transferred their interest from the laboratory to the field of applied nutrition...Unfortunately little public health research of this kind is being carried out, mainly because the individuals fitted by training and temperament to carry it out have been few and their opportunities scanty. Chapin of Providence was the outstanding pioneer, and since his time an increasing number of public health workers with this type of training has been developed, mainly in our schools of hygiene. Epidemiology has received the greatest benefit, and a certain amount of this type of research has been carried out in industrial hygiene and in health education, but very little in nutrition. The subject is important to public health because when the improvement of human nutrition becomes a major objective of public health workers, it will mark the passing of preventive medicine from the comparatively simple stage of disease prevention to the extremely complex stage of health promotion. It will bring into the public health field all the technical complexity which medicine owes to the biologist, the physiologist and the psychiatrist. The advances of medical science will be applied to the mass in an endeavor not only to prevent disease, to perfect environment, and to correct defects, but to make the human machine function more perfectly. This will change profoundly the organization and administration of public health work as well as the training of its personnel..."

Fruit Juice Industry The rapid growth of the fruit juice industries in the past nine years, from a production of little more than 1,000,000 cases in 1929 to about 24,000,000 cases during the last year, is the subject of a special article in an issue of The Agricultural Situation, monthly publication of the Bureau of Agricultural Economics. "America drinks its fruit," says Gordon Ockey of the Federal bureau, reporting that "during the fiscal year 1937-38 the American people probably drank 80,000,000 gallons of canned fruit juices, not including sizable quantities of sweet apple cider, more than 50,000,000 gallons of canned tomato juice and about 60,000,000 gallons of wine made from grapes produced in this country." Ockey says that prior to 1929 grape juice and sweet apple cider were the only unfermented fruit juices consumed in significant quantities. Little tomato juice was then consumed, and commercial production of grapefruit juice, pineapple juice, orange juice, lemon juice and various fruit nectars was yet to be developed. In contrast, almost 24,000,000 cases of fruit juices were packed last year, and more than 16,000,000 cases of tomato juice. (New York Times, November 26.)

Documentary Film Making Richard Griffith, writing under the title, "The Film Faces Facts," in Survey Graphic (December) says: "Can the movie medium serve in social interpretation? Will it, if it can? Under what conditions of sponsorship and technique must a film be produced in order to present facts in a form sufficiently palatable for acceptance by an entertainment-seeking audience? Those who take the movie seriously have long concerned themselves with tentative answers to these questions, but to little practical avail until recently. For few American films even attempted to reflect facts, and, as a separate category of the motion picture, the documentary film was almost non-existent. Nanook of the North, the first important product of the documentary method of film-making, was produced on this continent by the Irish-American Robert J. Flaherty in 1921. But in the intervening period, pioneer work in documentary shifted to Europe. Not until the rise of The March of Time and the production of Pare Lorentz's The Plow That Broke The Plains and The River (see Survey Graphic for June 1936 and December 1937) did we hear again of the film which dramatizes fact as an important movie genre. By that time the popularity of pictorial journalism and the post-depression interest in news, facts, social trends, had prepared the way for renewed interest in documentary. The documentary film movement over here is beginning to get beyond the talk stage, and technicians are seeking the answers to the above questions in fresh work with sound and camera. Many are ready to believe that a satisfactory answer has already been found in the mere existence of the documentary film. The nation-wide success of Lorentz's two government films has put documentary on the map with a flourish. Never before have pictures dealing with social problems captured the attention of an audience which includes all levels of American opinion. And this popularity, as widespread as it is unprecedented, has raised high hopes among those who have for years wanted to enlist the film as an instrument for social education..."

Sweet Potato Laboratory R. E. Wright, superintendent of the Sweet Potato Laboratory, Gilmer, Texas, in an article in the Dallas News (November 21) says in part: "It is the purpose of the laboratory to secure information that will be helpful in increasing the yield per acre of high quality sweet potatoes and aid in removing the lower grades from the commercial markets...Although the Puerto Rico is recognized as the leading commercial variety at the present time, some attention is being given leading varieties of other areas with which our crop ultimately has to compete. The Triumph, primarily a starch variety, produced the highest total yield of 248 bushels. The Louisiana Unit 1 was second with 232 bushels while the common strain of Puerto Rico was eighth, producing only 162 bushels...Co-operative work is being carried on with the United States Department of Agriculture for the purpose of studying the adaptability of the older named and foreign varieties, as well as various seedlings, to the East Texas area. Eighty lots of this material have been increased this season and will be tested in replicated plots during the 1939 season. Arrangements are being made to add approximately another hundred lots to our collection next season..."

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Section 1

December 2, 1938

SUBSIDIZED WHEAT FOR ENGLAND A deal involving the export of 20,000,000 bushels of domestic wheat to flour mills in the United Kingdom was announced yesterday by the Department of Agriculture. The Federal Surplus Commodities Corporation will subsidize the transaction through American exporters, under terms of the wheat export program announced by Mr. Wallace on August 29. (New York Times.)

A Chicago report in the Times says North American wheat markets responded in a vigorous manner yesterday to reports from London that the Federal Surplus Commodities Corporation had sold a large volume of domestic grain to English mills. Prices ran up as much as 1 5/8 cents a bushel over day before yesterday's close and closing quotations were 3/4 to 1 1/2 cent higher on the day. December led the advance.

CHAMPION STEER SALE The grand champion steer of the 1938 International Livestock Exposition sold at auction yesterday for \$3.35 a pound, \$1 a pound more than last year's champion and the highest price since 1929. The steer, an Aberdeen-Angus, was fitted and shown by 14-year-old Irene Brown, a 4-H Club girl of Aledo, Illinois. Mercer, the steer, weighed about 1,130 pounds, on which basis Miss Brown realized \$3,785.50 from the sale. (Associated Press.)

XMAS FLOWER EXHIBITION The second annual Christmas flower show of the U.S. Botanic Garden will be open to the public Sunday from 9 a.m. to 4 p.m. in the exhibition conservatory on First Street between Maryland and Independence Avenues (Washington). More than 1,200 pots of poinsettias, with an average of six plants to a pot, are now being placed in the conservatory. In another week or 10 days the show will be augmented by approximately 1,000 cyclamen plants. (Washington Star.)

FREIGHT RATES ON CITRUS Secretary Wallace was advised yesterday by the railroads that they would be unable to reduce freight rates on citrus fruits to aid in the plan formulated in Washington a week ago to dispose of the record crops of oranges and grapefruit. Operators of chain and independent retail stores had told Mr. Wallace that they would reduce prices of citrus fruits if the railroads would cut freight rates. (New York Times.)

Artificial
Breeding

"In New Jersey's unique Artificial Breeding Society work," says Breeder's Gazette (December), "274 cows were artificially mated, in the first 113 days of operation, to the outstanding proven sire, whose first 13 daughter-dam pairs gave him an index (siring probability) of 4.2 percent fat, 16,000 pounds milk (his 13 daughters milked 1,000 pounds more than their dams; at the same time tested higher in fat). Via this plan the influence of a truly great (proven by his daughters' production) dairy sire is spread 10 to 20 times more rapidly by artificial insemination than by ordinary breeding methods... The New Jersey Association adopted a plan under which an experienced veterinarian was hired... Each member bears his share of expense. This plan spreads the influence of a good proved sire, reduces cost of service, eliminates keeping and feeding a bull on the farm, quickly establishes a large family of high producing cows, practically eliminates danger of spreading diseases through service... The original number (1,050 Holstein cows) has been increased to 1,750. All these will be bred by using 3 sires. Since members also own some Guernseys, 2 sires of this breed have been made available..."

U.S.D.A.
Films

Prices for the 300 series of film strips issued by the Department of Agriculture for the fiscal year 1938-39 are lower than those of the previous year. Until June 30, 1939, they will range from 45 to 65 cents each, the majority selling for 45 or 50 cents. Subjects include soil conservation, farm crops, dairying, farm animals, farm forestry, plant and animal diseases and pests, roads, farm economics, farm engineering, home economics, and adult and junior extension work. Lecture notes are provided except with those that are self-explanatory. A list of available film strips and instructions on how to purchase them may be obtained from the Extension Service, Washington. (Journal of Home Economics, December, 1938.)

New Uses for

Harnessing of the farm to the factory for the development of new jobs and new markets for Canadian agricultural produce was envisioned in an address by D. G. McKenzie, former Minister of Agriculture for Manitoba and now President of the United Grain Growers, Ltd., farmer-owned grain handling agency of western Canada. New uses for farm produce, said Mr. McKenzie, could be found in the manufacture of cosmetics, houses built from plastics derived from agricultural products, all-weather surfaced roads made possible by derivatives from oats, paper and textiles from milk, and dozens of other industrial products from farm commodities. Mr. McKenzie pointed out the great need for new avenues of development of farm markets. Canadian farm production in 1937 was valued at \$1,051,698,000. In outlining what could be done for the farms by the development of industrial markets, Mr. McKenzie cited research in the United States. In 1934, Canadian manufacturers, he said, used \$440,000,000 worth of raw material from Canadian farms. He thought it possible to raise this figure to \$500,000,000 or \$600,000,000. (Christian Science Monitor, November 26.)

Freight Rates and Farmers

Ralph L. Dewey writes on "The Farmer's Interest in Freight Rates" in the Agricultural Situation (November).

He says in the concluding paragraphs: "The farmer is desirous of increasing the flexibility of transportation rates. Freight rates, along with long-term interest rates, constitute one of the most rigid price elements in the national economy. While the proposition that transportation and other production costs tend to be passed on to the consumer has considerable validity in the long run, this does not hold true for individual farmers faced with frequent and often violent fluctuations in prices and income. The farmer finds that certain producers, such as manufacturers, adjust their production to market conditions in such a way that prices do not fluctuate widely in periods of economic depression. Hence the farmer has difficulty in reducing his operating costs sufficiently at such a time to offset his reduced income. He finds that his cost of living is not adjusted rapidly enough to offset his declining purchasing power. If it could be effected without sacrificing the necessary transportation service, the farmer would like to have his freight rates fall during periods of recession at least as rapidly as the prices of his products. But he wonders how this objective can be realized as long as the current policy of maintaining 'sticky' rate levels and even increasing them when the curve of economic activity and prices dips downward is espoused by the carriers."

Cotton Sacks for Sugar

Cotton sacking has given promise of greater durability than jute in preliminary tests incorporating the tremendous strain to which sugar bags are subjected, Charles A. Farwell, executive officer of the American Sugar Cane League, announces. So far the expense of cotton sacking has proved greater than that of jute, but the league hopes that its "toughness" will make it cheaper in the long run, he said. (New Orleans Times Picayune, November 23.)

Wax Picking of Turkeys

America's holiday turkeys, more of them this year than ever before, will come to the table cleaned by a novel and efficient waxing and de-feathering method. As many as 300 cleaned turkeys can be turned out in an hour, ready for oven or skillet, by the new method. In one installation it takes each bird 53 minutes to go through the entire stripping process, but with him go hundreds of other birds. The process starts with the suspension of the bird by his feet from a conveyor. As the bird starts through the "mill", tail and wing feathers and some of the larger body feathers are removed by hand. Next the bird enters a drying tunnel until the remaining feathers are entirely dry. The bird is then mechanically dipped into wax vats. The belt then carries the future dinner into a tunnel where cold water is sprayed on the wax coating to harden it. Employees then strip off the wax, which carries with it the feathers. Inspection to guarantee that pin feathers have been removed is followed by singeing. The wax used is reclaimed by heating and run through a rotating apparatus that separates wax and feathers by centrifugal force. (Science News Letter, December 3.)

Libraries for Farmers The Country Home Magazine (December) commenting editorially on current efforts to extend library conveniences to rural areas, says: "Small branch libraries in the crossroads towns and book trucks stopping regularly at farm homes are tremendously popular wherever they have been established. One estimate says that 40,000,000 Americans are still out of reach of local public libraries...Many states this winter will follow the lead of the six which have been putting up money for rural library service. Governor Bailey of Arkansas has called the rural library fund 'the most popular act of our legislature.' Certainly there are dozens of worse ways to spend money."

Sleeping Sickness in Birds Migratory birds, not horses, may be the means of distributing so-called horse sleeping sickness, widespread ailment recently discovered to have killed several children and suspected of being fairly widespread among humans as well as horses. The discovery of the virus of the disease in the brains of pheasants that died after a paralyzing ailment is reported by Drs. Ernest Edward Tyzzer, Andrew Watson Sellards and Byron L. Bennett, of the Harvard Schools of Medicine and Public Health, in Science. "It may be seriously questioned," they state, "whether the horse or any other domestic animals play any essential role in assuring the perpetuation of this disease." From their findings and those of other scientists it looks as if the ailment were a bird ailment which at times overflows to the horse and human populations. Laboratory tests by other scientists have shown that migratory birds can get the disease. The Harvard scientists say that extensive surveys should be made to determine whether migratory birds have the ailment under natural as well as laboratory conditions, and if so, how widespread the disease is among such birds. (Science Service.)

Medical Insurance "The campaign for medical insurance, which farmers have been waging in California, is now bearing fruit," says an editorial in Pacific Rural Press (November 26). "The California Medical Association proposes to set up a service by means of which citizens may pay a flat rate per month and go to the physician, surgeon, or hospital of their choice for needed attention. This service is to be furnished by the members of the California Medical Association, who comprise about 90 percent of the leading doctors of the state, and they will be reimbursed from the state insurance fund. The fund is to be non-profit, the monthly payment for the service to be based on the actual cost, as experience may reveal. If the plan is carried out on the broad basis on which it is visioned, this will avoid state medicine and political control. It does not require any additional legislation, or extra equipment. This is the sort of service the farm groups have asked for. They wanted to pay to be kept well, and be able to budget the necessary expense. This does not interfere, of course, with free medical service for indigents, nor does it put any compulsion on those fortunate citizens who do not have to worry about the cost of medical service, and may prefer to leave it to chance. But to a great many homes it will be welcome relief. The medical association is to be congratulated for meeting the request of agriculture."

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Section 1

December 5, 1938

FLOUR SUBSIDIES, The Agriculture Department discloses that it has
GRAPEFRUIT agreed to withdraw its offer to subsidize exports of flour
SURPLUS to Great Britain, because of recent transactions involving
the sale of 20,000,000 bushels of unprocessed wheat to British millers, according to an Associated Press report. Since early in September, the government has been paying an export subsidy on all flour sold for export.

The Department of Agriculture announces that the Federal Surplus Commodities Corporation has been authorized to buy surplus grapefruit under a program designed to remove excessive supplies of the fruit from regular trade channels. The purchased products will now be distributed to families in need. (New York Times.)

STOCKYARDS Chicago's stockyards strike, called on November 21, is
STRIKE ENDS over, says a report to the New York Times. "Commission men have been advised that normal operating forces will be on hand in the morning (Monday)," said O. T. Henkle, general manager of the Union Stockyards and Transit Company. "Most of the animals that reach the yards come from territory within a hundred miles of Chicago and shipment requires only a few hours...We believe that there will be a sizable market the first day and at least a normal supply the rest of the week."

WORLD COMMODITY Inauguration of the first weekly world commodity
PRICE INDEX price index, based on identical commodities and weights, ever to be offered to the public, is announced in a joint statement issued for publication today by General Motors Corporation and Cornell University. The index, covering forty identical commodities for each country so as to facilitate world comparisons, will be released each Monday morning. Countries from which prices are being obtained at present include the United States, Canada, United Kingdom, Australia, New Zealand, the Netherlands, Belgium, France, Sweden and Finland. (New York Times.)

CAMERA A public exhibition of 87 photographs, sponsored by
EXHIBIT the Camera Club of the Department of Agriculture, opens today in the patio of the department's Administration Building, says a report in the Washington Post. One section of the exhibit consists of 48 prints picked from 345 submitted in a camera contest.

Geological Science (December 2) reports that a bibliofilm service
Bibliofilm has been opened in the library of the Geological Survey.
Service "Bibliofilm Service is operated on a non-profit basis by
 the American Documentation Institute under cooperative
agreement with the Library of the U. S. Department of Agriculture, and
also maintains copying installations in that library and in the Army
Medical Library. It acts as a national clearing house for copying orders
for research materials, filling them through its own and other services,
for materials in substantially all Washington and Baltimore libraries,
bureaus and institutions and in other cities here and abroad...The addi-
tional resources now opened to research workers everywhere, through
Bibliofilm Service in the Geological Survey Library, comprise everything
properly copyable among over 250,000 volumes, including geology, mining,
paleontology, mineralogy, chemistry, 50,000 geologic and other maps,
United States and foreign; some 1,200 foreign and domestic periodicals and
serials, including reports of State Surveys and Mining Bureaus, all
governmental publications on the above subjects and the geological pub-
lications obtained by exchange from every foreign government..."

Cold Storage Quick Frozen Foods (November) contains a short ad-
Lockers dress on cold storage locker plants, by C. F. Mohr. He
 says in part: "The sizes and dimensions of individual
lockers have varied considerably since locker plants were first started
and some plants have both small and large lockers for rent. However,
what is now used in most modern plants as the universal size is a locker
20" wide, 30" deep and 17" high, which has a capacity of 10,200 cu. in.
and will hold nearly 300 lbs. of meat, which means a quarter of beef and
a hog of average size. The amount such a locker will hold depends, of
course, upon the way the meat is cut and wrapped. This size locker
usually rents for \$12.00 per year or \$1.00 per month. When this movement
first started, the lockers were used almost entirely by farmers, but to-
day in some localities there are nearly as many townspeople using the
service as farmers, because the townspeople can buy their food through
the man in charge of the plant in wholesale quantities and effect prac-
tically the same saving as the farmer. The size of the town does not matter
so much as the number of people who use a given point as a trading center.
Towns ranging from 100 population upward now have locker plants. Plants
originally were started with 200 to 300 lockers. Today, we have plants
of 1,500 and 2,000 lockers, and as people become accustomed to this service,
it is impossible to foretell to just what proportions a locker plant will
grow."

Wool Prices Commodity Credit Corporation loans averted a price
 debacle in raw wool early this year, members of the National
Wool Marketing Corporation were told recently by C. J. Fawcett, manager.
Since then, Mr. Fawcett pointed out, prices have risen well above their
loan values and the outlook is materially improved. (New York Times.)

Xmas Tree American Forests (December) in an editorial on conservation of Christmas trees; says in part: "Any one of our states outside the prairie belt has ample forest land not now used to grow all the Christmas trees the nation needs...Any voice raised against the little Christmas tree should be raised not against its use but against the manner of its cutting and harvesting... Great numbers come from the tops of trees cut in lumbering operations which otherwise would be left to rot or burn in the woods. Increasing numbers too are now coming from privately operated plantations where trees are grown on short rotations expressly for the Christmas trade. Many trees represent thinnings from natural forests which benefit the trees left. And finally the use of living trees at Christmas time has grown by leaps and bounds in recent years...Interest in conservation could be turned to better account by creating a public demand for certified Christmas trees, the certificate being evidence that the tree has been cut under improved forest practice; or by promoting greater public care with fire in the woods. Certified Christmas trees are now available in some markets and a public demand for them would tend to discourage operators who are stripping the land for small trees, while better forest fire prevention would save many times over the number of trees cut for the Christmas season."

Library Dr. Frank Thone, in a Science Service copyright report, says that a special library on grasses which belonged to Dr. Albert S. Hitchcock (deceased, formerly of the Bureau of Plant Industry) "is now in process of being catalogued at the Smithsonian Institution, in which he worked for many years and to which he willed his approximately 6,000 books, monographs and pamphlets on the world's grasses. In the course of his long working lifetime, Dr. Hitchcock contributed very materially to the building up of the immense collection of grasses in the U. S. National Herbarium. Nearly a quarter of a million sheets of grass specimens, duly mounted, identified and labeled, constitute the largest grass collection in the world and make the National Herbarium the Mecca of grass specialists from all civilized lands..."

Farm Fire Fire losses on farms this year will amount to
Losses Up \$95,000,000, which is approximately 5 percent more than last year, the committee on farm fire protection of the National Fire Protection Association said at its semi-annual session. Chairman of the farm fire protection committee is David J. Price, and Harry E. Roethe is secretary. Both are from the United States Department of Agriculture. Estimate of the fire losses for this year was made by V. N. Valgren of the Farm Credit Administration. (New York Journal of Commerce, November 30.)

International Economics International economic collaboration, even though on the modest scale possible under prevailing circumstances, was urged recently as the only practical approach to a solution of the world crisis by Paul Van Zeeland, former Belgian Premier. Mr. Van Zeeland said the economic approach to the task of world rehabilitation was the only possible one at the present time. While admitting that some of the proposals in the report he presented to the French and British Governments last January had been nullified by unfavorable political developments, Mr. Van Zeeland declared that "the general directions and the big lines indicated in that report are still adapted to the necessities of today". As a beginning he suggested an international agreement limited to a few points such as the smoothing of tariffs, the enlargement of quotas, untying of exchange relations and extension of short-term credit--all measures belonging to the realm of expressions of good-will rather than binding undertakings. (New York Times.)

Highway Planning Highway planning on a national scale, modeled after the German autobahn system, was urged last week as a logical program for this country by C. H. Upham, director of the American Road Builders Association, before the Highway Research Board. Germany's new network of roads, according to Upham, who investigated the system last summer, has reduced the traffic accident toll in Germany by 83 percent. With the two streams of traffic separated by a grass strip, all pedestrians, cyclists and horsedrawn vehicles excluded and grade crossings eliminated, he pointed out, the autobahn permits speed with less danger. A similar road system should serve traffic from Boston to Washington and New York to Chicago, Upham declared, under a "master plan" which may require 25 to 50 years to develop. He advocated that the plan should be based on a thorough study of present highway volume. (Press.)

Soil Erosion Control Ralph Fulghum, in Soil Conservation (November) says: "Rain fell in Alabama on March 15, $8\frac{1}{2}$ inches in 12 hours. That was nearly 2 months' average rainfall, and 5 inches of it fell the first 2 hours. The erosion-control demonstration area at Greenville was in the heart of the downpour...To check the value of strip cropping and close-growing vegetation, soon after the rain the staff examined about 15,000 feet of terraces below strips of close-growing vegetation, and about 15,000 feet of terraces on the same soil type but below bare terrace intervals. They found three times as many rills in the bare terrace intervals, twice as many breaks per mile, and twice as many sand-bars or deltas in the terrace channels below the bare intervals as in those below the close-growing strips...There were more terrace breaks per mile on the more level or 0 to 5 percent slopes than on the 5 to 10 percent slope. Probably that is because the terraces were built on a variable vertical interval basis and the terraces were much closer together on the steeper slopes. On the 0 to 5 percent slopes there were 27 rills per mile (indicating sheet erosion) in the covered terrace intervals compared with 46 rills per mile (not quite twice as many) in the bare intervals. The difference on the steeper or 5 to 10 percent slopes was far greater, there being nearly five times as many rills in the bare intervals as in those covered with close-growing vegetation. This indicates that while strip cropping with close-growing vegetation reduces erosion on the more level land it is even more necessary on the somewhat steeper slopes to check rills and sheet erosion between the terraces..."

DAILY DIGEST

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Section 1

December 6, 1938

SOUTHERN NEWSPRINT

Southern newspaper publishers yesterday regarded the creation of a newsprint paper industry as a means of ending a foreign monopoly as well as an aid in rehabilitating the South, says a Lufkin (Tex.) report by the Associated Press. E. L. Kurth, of Lufkin, president of the recently organized Southland Paper Mills, Inc., announced construction would start shortly after January 1 on a \$6,000,000 plant. A Reconstruction Finance Corporation loan of \$3,425,000 has been obtained. The newspaper publishers, who subscribed to \$429,900 in stock, have agreed to foster the new industry by taking the plant's entire output for five years at Canadian prices, although the plant could undersell Canadian mills.

LIVESTOCK SHOW CLOSES

Exhibitors at the 39th International Livestock Exposition headed homeward yesterday richer by \$1,000,000 in sales money and \$100,000 in prizes, says a Chicago report by the Associated Press. The close of the exposition--the largest of its kind in the world--found Illinois farmers and stock breeders leading all states and the Dominion of Canada. It was the third successive year that Illinois farmers had proved themselves the country's best all-around agriculturists. They took 61 championships and 164 first places. Exhibited and judged during the eight-day show were 11,621 cattle, horses, sheep and swine and thousands of grain samples. H. B. Heide, manager, estimated total attendance at 410,000, about 10,000 above 1937.

EROSION CONTROL

H. H. Bennett, soil conservation chief of the Agriculture Department, said yesterday farmers in almost every state were organizing to prevent soil erosion as a result of a nation-wide demonstration program. Mr. Bennett reported to Robert Fechner, director of the Civilian Conservation Corps, that approximately 70 percent of the labor used in the national soil erosion control program had been furnished by hundreds of the CCC camps. (Associated Press.)

SUGAR TRADING

In the heaviest trading for any session since July 21, 1933, domestic sugar futures on the New York Coffee and Sugar Exchange yesterday closed with net losses of 22 to 24 points. The decline was due to the announcement over the week-end by Secretary Wallace that domestic quotas for 1939 would be 6,832,157 short tons, raw value, compared with 6,780,566 this year. (New York Times.)

Meat Records
Show TB

Although bovine tuberculosis in the United States has been reduced to less than 0.5 percent, the small remaining infection is responsible for many condemnations of animal carcasses and parts in connection with federal meat inspection. To locate these sources of infection and aid in their elimination, the U. S. Bureau of Animal Industry's meat-inspection records are so kept that reports can be made showing the neighborhood and, in many cases, the exact farm on which a badly infected shipment originated. A typical case is that of a cattleman who sold a few cattle on a midwestern market and was notified a few days later that one of the animals was so badly infected that the carcass had to be condemned for use as food. He then had the breeding herd tested for tuberculosis and found 46 reactors. To get first-hand information on the condition of the animals, the owner followed the reactors to the slaughtering establishment, where it was revealed that 40 of the number had plainly visible lesions of tuberculosis and two of these were badly affected. The owner, impressed with this special service, agreed to test his entire herd regularly in the future. The main difficulty encountered in tracing animal infections from inspected meat plants to farms or ranches is that many shipments lose their identity in passing from one buyer to another on their way to market. However, through the use of ear-tags, brands and tattoo marks, the Bureau's meat-inspection and field services have been able to trace a great many cases successfully. (Journal of the American Veterinary Medical Association, December.)

Gas Storage
for Fruit

Refrigerating Engineering (December) contains a paper, "The Possibilities of Gas Storage in the United States," by R. M. Smock, Cornell University. He says in part: "The work of Allen and McKinnon and Allen and Smock has shown the possibility of storing Yellow Newtowns in California in gas storage at a temperature of 40-45° F. without any sacrifice in length of keeping and internal browning is avoided. Investigations at Cornell have shown the possibilities of gas storage with other varieties subject to low temperature troubles. Northwestern Greening after 30 weeks in 5 percent carbon dioxide and 2.5 percent oxygen at 40° F. was still as green as when first stored and had only a slight amount of brown core. All fruits were marketable...McIntosh stored in 5 percent CO₂ and 2.5 percent oxygen retained its full flavor and crispness for 30 weeks at 40° F. and was free of brown core...The possibility of storing our green cooking apples like Rhode Island Greening with full retention of green color until the following June should be investigated. The work of Kidd and West suggests the possibility of long time keeping of Bartlett and other pear varieties in gas storage...Florida investigators feel that there are certain possibilities in storing citrus in modified atmospheres over long periods...It remains the pomologists' obligation to investigate the specific atmospheric and temperature requirements of various fruits and to indicate any possible

Gas Storage for Fruit (continued)

advantages that might accrue from gas storage. On the basis of the preliminary work in this country mentioned above, it would seem safe to predict that the full practicability of gas storage in this country should be investigated. Building costs, structural requirements and other engineering features peculiar to our own situation should be studied before the pomologist can tell fruit growers of the real practicality of gas storage, even though he may be aware of the enhanced value of the fruit resulting from such treatment."

Beverages
or Juice?

"Canners or bottlers of pineapple and tomato juice are manufacturers of beverages according to some states and not according to others," says Food Industries (December). "Both of these juices are interpreted as beverages in Connecticut, Maine, New Hampshire, Pennsylvania and Rhode Island...However, Delaware, Louisiana, Massachusetts, North Carolina, Oregon and Wisconsin state that these two juices are not beverages...In Michigan pineapple juice is a beverage, but tomato juice is not. In Maryland, grape juice, pineapple juice and orange juice are beverages if they are in glass bottles, but not if they are in tin cans; while tomato and prune juices are never beverages. In Nebraska a pure juice is not a beverage, but if anything such as sugar or water is added it becomes a beverage and requires a beverage license for its manufacture. All of the foregoing oddities or perplexities have been discovered in our efforts to digest and tabulate more important state regulations pertaining to foods...It is to be hoped that a greater uniformity of laws, regulations and interpretations will be forthcoming when the various legislatures get down to overhauling their own statutes."

Starch from Messrs. Paine, Thurber, and Balch of the Bureau of Sweet Potatoes Chemistry and Soils and W. R. Richee, of the Laurel (Miss.) Starch Factory are authors of "Manufacture of Sweet Potato Starch in the United States," an 18-page, illustrated article in Industrial and Engineering Chemistry (December). An abstract of the article says: "The chemical research and engineering application involved in the erection and operation of a factory for production of starch from sweet potatoes are described with the objective of furthering the establishment in the United States of an industry to supply a part of the domestic requirements for so-called root starches. The properties of sweet potato starch were studied and evaluated from standpoint of use in various industries. The value of the by-product pulp as cattle feed was established, and in this role it might play an important part in southern agriculture. A new method of dehydration was evolved for making possible the storage of sweet potatoes and year-round operation of starch factories. This new method of dehydration makes possible additional sweet potato by-products and also various grades of flour which can be used in a number of industries. A summary is given of the lines of agricultural research which were undertaken in order to adapt the sweet potato crop to this new type of utilization. Chemical and mechanical equipment requirements for a sweet potato starch factory embodying the experience gained to date are outlined."

"To Hold
This Soil"

"...The citizen who would inform himself as to what the Soil Conservation Service is doing to protect and build up a natural resource upon which the Nation's very life depends, should read Miscellaneous Publication No. 321, United States Department of Agriculture: 'To Hold This Soil', by Russell Lord (45 cents) says an editorial in San Antonio Express (November 28). "The bulletin convincingly presents the problem and the remedial measures being taken in the many photographs which accompany the text. If any person requires further proof as to the need for, and practical value of, this work, he can find it demonstrated in some field or pasture, or perhaps cooperatively along a watershed, within easy driving distance of his own home..."

Public Roads Modernization of a large part of the highway system Annual Report is the most important aim in the program of the Bureau of Public Roads, Thomas H. MacDonald, chief, said in his annual report. Many of the most used roads in the nation's network must now be classed as inadequately improved, Mr. MacDonald said. Eliminating those curves that have become traffic hazards at present normal driving speed and increasing sight distances by road straightening and grading at the tops of hills are widespread needs on the existing main highways, he added. "These defects are found generally on roads in every part of the country and their danger to traffic is the consequence of an increase in vehicle speed far beyond what was visioned fifteen or twenty years ago and far in excess of the legal limitations that existed in most States," Mr. MacDonald said. More than 15,000 miles of highway were improved during the last fiscal year in the program administered by the bureau, according to the report. The bureau also supervised the elimination of 711 grade crossings, reconstruction of 144 obsolete grade-crossing structures and protection of 744 crossings by signs and signals. (New York Times.)

Marquis Elected J. Clyde Marquis, permanent delegate of the United States under the Department of State to the International Institute of Agriculture in Rome, has been unanimously elected Vice-President of the Institute, succeeding Dr. J. J. L. Van Rijn, of the Netherlands. Thirty-six countries were represented at the election. Mr. Marquis has served as the American member of the permanent committee of the institute since November 1, 1935. The quality of his service and the esteem in which his associates held him is unquestionably indicated by their unanimous election to the vice-presidency of the institute. In accordance with the treaty under which the institute was established, the president of the institute is always an Italian national. (Rural America, November.)

Book Reviews In the department, "Your New Books," in Natural History (December) Farida A. Wiley reviews "The World Was My Garden" by David Fairchild and H. E. Vokes reviews "Behold Our Land" by Russell Lord.

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Section 1

December 7, 1938

WORLD WHEAT, ARGENTINE SURPLUS

A London cable to the New York Times says United States Ambassador Joseph P. Kennedy, as chairman of the International Wheat Advisory Committee, yesterday summoned the twenty-one member nations to meet in London January 10. They will consider "the present world wheat crisis, the imminence of which the committee emphasized in its report to its governments last July 15" and "what action the committee should recommend to the constituent governments to cope with that crisis." The report last July made no recommendations for dealing with the surplus from last year's record-breaking crop.

The Argentine Information Bureau reported yesterday it had been advised by cable that Argentina will have an exportable surplus of 5,500,000 tons of wheat this season as compared to the 2,000,000 tons of old wheat during 1938 without a carryover. The estimate, said the bureau, was based on a statement by the Argentine grain elevator board that the area sown to wheat in Argentina totals 20,868,000 acres, compared with a 10-year average of 19,102,600 acres. The output, it was stated, will likely total 8,000,000 tons. (Associated Press.)

ALASKA HIGHWAY

The British Columbia Legislature yesterday granted \$25,000 for a preliminary survey of the proposed Alaska highway route, extending through British Columbia from the state of Washington to the territory, says a Victoria report by the Canadian Press. Premier Pattullo said that the United States offered to lend money without interest to British Columbia for construction of the highway and he intended to continue negotiations next year. Mr. Pattullo said it was "good neighbor" policy to permit the United States access from one portion of its territory to another.

HEMP PLANT EXPERIMENTS

Federal, state and local experts joined in an effort yesterday to develop by scientific experiment an Indian hemp plant without the narcotic properties of marijuana, says a report in the Washington Post. Marijuana cannot be exterminated entirely, Commissioner of Narcotics Harry J. Anslinger pointed out after a meeting yesterday of 22 narcotic authorities, because fiber from the plant has commercial uses for which about 500 tons a year are used. Dr. Herbert J. Wollner, consulting chemist of the Treasury Department, was appointed coordinator of the scientific work carried on by Federal agencies and by private research and educational agencies.

Cooperative
Meat Plant

George H. Watson, in Refrigerating Engineering (December) describes the cooperative meat plant--a new refrigeration development for farm products. "Eleven such plants have already been built in Mississippi," he says, "by cooperative associations made up of farmers. Each building cost about \$50,000 and has about 15 tons of refrigeration for various processes to be found in any meat packing plant. The plan is to have one in each county, eventually, under the guidance of the Mississippi State College, which holds title to the buildings, leasing them to the cooperative associations. The Extension Service and county agents largely supervise the operation of the plants... The cold storage plants, operating only the latter two-thirds of 1937, handled more than one half million pounds of pork, beef, eggs, potatoes and miscellaneous products. Two of the plants became so overloaded they had to send notices out to farmers not to bring in any more products. During 1938 the poundage handled will total nearly twice the amount for 1937... The plants make an average charge of two cents per lb. for salt curing of meat and three cents for sugar curing. The charge for storage is one cent per lb. per month, being in addition to the charge for curing. About one-third of the farmers leave their meat for storage after curing. Some take advantage of storage alone. Outright grants were made for the erection of some of these plants and taxes are not even assessed. Operating costs are thus at a minimum. Bond issues are being used for additional ones, usually handled by towns and counties, proceeds of the issues being matched by government loans. A staff of seven men is required for the average plant, being trained in meat curing and storage by the state agricultural college..."

Foreign Trade
Information

The National Foreign Trade Council announces that a committee will be appointed shortly to establish a clearing house for foreign trade information of an educational character. At their convention last month foreign traders adopted a resolution urging the council to set up the educational bureau. The agency is intended to compile and make public a list of foreign trade speakers, publications, slides, films and other educational data which would be made available to colleges, universities, high schools, secondary schools, luncheon clubs and study groups and to carry on any other activities which would logically come within its province. (New York Times.)

Trichinosis
Detection

Development of a new biochemical substance which is expected to be of great use in the detection of trichinosis is announced by the Public Health Service. Described by John Bozicevich, associate zoologist of the National Institute of Health, the antigen already has been used successfully, notably during an outbreak of trichinosis in Vermont. Consumption of pork which has not been properly cooked is responsible for the disease. (Washington Post.)

New Chemical Periodical Nature (London, November 19) reports that a new periodical, Chemical Products and the Chemical News, is being published monthly by Science Services, London. "It will deal with matters of interest to the chemical, drug, pharmaceutical and cosmetic industries, and particularly the new uses to which chemical products and related materials are being put and their future place in industry..."

Grasshopper Migration "An interesting experiment was conducted in North Dakota last summer to determine how far and how fast grasshoppers fly in the course of a migratory movement," says an editorial in the Montana Farmer (December 1). "Approximately 100,000 'hoppers were sprayed with a fast drying red lacquer and released on July 17 a few miles west of LaMoure...Two days following the release, some of the marked specimens were found at a point 20 miles northwest of the starting place. In 14 days specimens were found 215 miles from LaMoure. The direction of the dispersal ranged from north to northwest of the point of release. While winds blew from the south and southeast, as well as from the north and northwest during the period covered by the observation, it was found that the heaviest flights were generally with the winds from the south despite the fact that the average velocity of the winds from the north was somewhat higher. Similar tests were made in other parts of the 'hopper territory last summer..."

Salt Content of Cheeses Two years of experimental work on the salt content of cheese convince specialists at the New York Experiment Station that the establishment of legal standards for the salt content of this product would go far to insure uniformity in cheese quality, says a Geneva report in American Produce Review (November 30). The station studies reveal that cheese with an improper salt content may develop into an inferior product regardless of the quality of the milk or the skill of the cheese maker. "During the past two years we have developed a simple test for determining the salt content of cheese that can be used at any cheese plant," says Prof. J. C. Marquardt, dairy specialist at the station. "The test also has special value to the operator of a cheese storage plant, as knowledge of the salt content of freshly made cheese can be used effectively as a guide for curing procedures."

FSA Tenant Aid Report The Farm Security Administration announces that during the first year's operation of the Bankhead-Jones Farm Tenant Act, 1,885 farm tenants, sharecroppers and laborers obtained funds to buy farms of their own, averaging 130 acres. The average loan to finance the farm purchase was \$4,890 but the average borrower spent only \$4,077 for the farm itself, using an additional \$804 for repairs and improvements to the property. An appropriation of \$10,000,000 was made by Congress for the first year. (New York Times.)

U. S. Butter Standards The U. S. Department of Agriculture announces that official United States standards for creamery butter have been promulgated by order of the Secretary of Agriculture, to become effective April 1, 1939. The official standards, which apply to the grading and certification of creamery butter by graders of the Department, are to replace tentative standards. The official standards provide a simplified system of determining the official United States score of creamery butter. The range of score is narrowed from the old basis of 75 to 95 points, to a new basis of 85 to 93 points. The score-card method of grading has been abandoned. A simple method of rating each factor--flavor, body, color and salt--has been substituted. Under the official standards, flavor constitutes the most important factor of quality; factors of workmanship are secondary. The new grades evaluate some 30 flavors with a score rating for each. (Pennsylvania Farmer, December 3.)

Cure for Pellagra "In the new issue of the experiment station director's annual report, Wisconsin citizens will read with pride that the continued studies in the use of nicotinic acid as a prompt and economical cure for human pellagra have been successful," says an editorial in Wisconsin Agriculturist (December 3). "Reports from hospitals all over the country testify to the effectiveness of nicotinic acid and of some pyridine compounds, (chemically related to nicotinic acid) in the relief of sufferers from this malady, which has been found incurable in advanced stages. This is but another honor to the Wisconsin biochemists, whose long list of vitamin discoveries have made our experiment station famous...A disease which has claimed nearly half a million persons in the nation as its victims, has yielded to these studies which were begun by curing black tongue of dogs, another form of pellagra. But you won't find the boys who did this important work crowing much about it, for they are just like the late Doc Babcock, the first of a line of notable Wisconsin food scientists--too busy looking for more problems to solve. It is this kind of scientist, who works and plods and digs down to the bottom of hard problems, that gets valuable things done for the farmers of Wisconsin."

Farmers and Sportsmen "The current hunting season," says an editorial in Ohio Farmer (December 3), "has been outstanding for two reasons. First has been the universal improvement in the amount of game bagged but even more important has been the improvement in sportsmen-farmer relationships...We have received less complaint than ever before of unsportsmanlike conduct on the part of hunters, and there has been by far the largest number of hunters seek permission from the landowner to hunt on his premises. There are reasons why this result has come about. First is the program of the conservation division whereby good sportsmanship has been stressed and controlled shooting areas have been developed. Second is the requirement by the state of license tags worn on the back of the hunter. This latter makes identification easier in the case of willful violation. A third helpful factor has been the vigorous enforcement of the law on game limits..."

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Section 1

December 8, 1938

STATE TRADE BARRIERS

Holton V. Noyes, New York State Agricultural Commissioner, asserted yesterday that erection of trade barriers by individual states "may be laying the foundation" for an economic "war" among the states. He said: "I can envision without difficulty the creation of such an atmosphere of dislike and contention that incalculable harm to our industry and most of our several states may result." He cited particularly what he termed "ports of entry" which he said had been set up on the borders of Idaho, Nebraska, Montana and New Mexico where, through inspection, authority is exercised "to accept or reject the products of other states." (Associated Press.)

U.S.-IRAQ TRADE PACT

The first commercial treaty to be negotiated between the United States and Iraq was signed on Saturday at Baghdad by Paul Knabenshue, United States Minister, and Seyyid Tawfik Swaidi, Foreign Minister, the State Department announces. The three-year treaty takes effect 30 days after ratification. It provides for unconditional most-favored-nation treatment. (New York Times.)

SOCIAL SECURITY

A liberalized social security program yesterday was placed near the top of the Administration's legislative agenda as the Social Security Board's advisory council was called into session tomorrow to shape final recommendations, according to a report in the Washington Post. A new block of amendments, extending social security act benefits to new groups of excluded workers, but barring immediate inclusion of 6,000,000 farmers and domestic workers, is virtually ready for White House scrutiny.

FARM PRODUCT ADVERTISING

An advertising campaign for New York State agricultural products will make use of newspapers in the spring throughout the eastern section of the country, Holton V. Noyes, commissioner of the State Department of Agriculture, announced yesterday. The drive will be voluntary and cooperative on the part of producers and will be supervised by the state under a law covering branding of agricultural products and setting up a rigid system of grading to insure quality. The advertising will be financed by sale of red and blue labels identifying and grading each product. Apples and potatoes will be the first commodities to bear the labels. (New York Times.)

Vitamin C
in Tomatoes

In a letter to the Journal of the American Medical Association (December 3) Drs. Olive E. McElroy and Hazel E. Munsell of the Bureau of Home Economics say: "A report of the Council on Foods appearing in the February 26 issue of the journal included a tabulation of the vitamin C content of various canned fruit juices and of sixteen brands of commercially canned tomato juice. Work done here during the past year supplements this report and also points out the variation which may be expected in different brands of commercially canned tomatoes and tomato juice and in different samples of the same brand. (The letter includes two tables.) The cans were purchased from retail stores in Washington, D. C., at approximately two weeks intervals between April and November 1937, so that tomatoes canned during the summers of 1936 and 1937 are presumably represented...The study shows that the variation in ascorbic acid content from can to can of a single brand may be greater than the variation from brand to brand. Probably both the variety and the condition of the tomatoes contributed to these differences. A study from this laboratory on home-canned tomatoes showed that fresh tomatoes of a single variety from the same plot of ground varied from 0.11 to 0.23 mg. of ascorbic acid per cubic centimeter, depending on the condition of the tomatoes...In the present study the higher values of some brands, in particular brand 'D' tomato juice, probably indicate the use of good quality tomatoes of a variety high in vitamin content."

R.O.P. Hen Standards "The initials, 'R.O.P.', which are familiar to the readers of advertisements of poultry breeders, stand for 'Record of Performance', says Everybodys Poultry Magazine, (December). "This term is used to describe a form of trapnesting which is being carried on under the supervision of a recognized state agency. Such egg records are semi-official in contrast to the official records which are made in egg laying contests...In general, an R.O.P. breeder must keep his farm open to an unannounced inspection by an official state inspector who takes full charge of the trapping and records during his stay. His job is to make a check of the accuracy of the trapping work to discover any errors, and to report any violations of the rules governing the work. To qualify as an R.O.P. hen, a bird must have laid at least 200 eggs in the trapnest in its pullet year, and these eggs must have averaged 24 ounces or more to the dozen. Birds having disqualifications can be removed from the flock at any time by the official inspector."

Refrigerated
Container

A new form of refrigerated container for the shipment of perishables by railroad was demonstrated recently in New York City, says a report in the New York Times. The container holds about 300 pounds of merchandise and is light enough to be moved by hand at local stations. The refrigerant used is either dry ice, in the case of frozen foods and fish, or water ice with fresh vegetables and fruits where temperatures below freezing are not required. The device is designed for use primarily by shippers of small consignments.

Bankers' Farm Program "Good is sure to come from the program announced recently by the Agricultural Committee of the Arkansas Bankers Association," says an editorial in Memphis Commercial Appeal

(November 27). "The program, designed to benefit both bankers and farmers, has the following six objectives: (1) Solid conservation with special emphasis on erosion; (2) Livestock improvement; (3) Farm beautification; (4) Continued interest in 4-H Club work; (5) Farm inventories and credit statements; (6) A live-at-home program. The banks have performed a splendid service over the years in promoting good farming. Long before midsouth farmers had become familiar with diversification and improved crops, bankers were liberal in their encouragement of calf and pig clubs... Aside from any community pride that bankers may have in improving the condition of the farmers in their sections, it is simply a matter of good business. More and better livestock and a live-at-home program mean more money for the farmers, and the more money they have, the more they will deposit in the banks, and the wider their business operations will be. Home beautification means a more contented farm population with a tendency to make farm life more attractive to sister and brother when they get home from college. We must get away from the old idea that farming is a mere means of existence... Farming is a business operation."

FSA Farm Tenant Aid Jeff McDermid, under the title, "Farm Samaritans", describes the work of the Farm Security Administration, in Better Crops With Plant Food (November). He says in part: "Fortunately, the FSA undertook its first year's effort to administer this new law with two broad bases in view, namely, to get good men and women matched with good land... With the aid of county tenant loan committees whose majority proved sane and reasonable, they went at it with caution and conservatism. With twice the amount available next year and more counties open to loans, the effect of the program must begin to shape itself directly. As generally operated last year the tenancy loan deal picked the best kind of experienced renters to take over as good farms as a reasonable price could obtain. This means that we have in theory the proper balance, consisting of willing and capable operators tilling the better grades of soil. It has not resulted in any 'slumming or rescue mission' stuff insofar as human assets are concerned, for few reforms of worthless individuals were attempted. It has not to any extent drawn back abandoned and costly estates into the surplus farm picture. Nor have new raw lands been opened up to create new over-production bogeys. Training schools, regulation accounts and records, character studies, and definite farm and home schedules again dominate the picture here, as with 'rehabilitation' loans. The amortized payment plan is used, the interest rate is low, and a program of so-called 'variable payments' suited to the harvest yields and fortunes of each year have been established in many cases. My idea is that with this kind of a fresh start, and with a set of fellows in double harness with their wives and the government, we can get a better line on leases and terms favorable to a sane kind of tenancy than we have ever had before. That means we may soon be able to set up

FSA Farm Tenant Aid (continued)

these men as examples of tenant success--other things being equal--and out of their experience we may help investors in farm land to construct a far sounder fabric of tenant relations than anything we have stumbled around with before. "

FDA Annual Report

The new food, drug and cosmetic act was characterized by the Food and Drug Administration of the Agriculture Department, in its annual report to the Secretary, as a law which unquestionably will afford greatly increased protection to the public, says a report in the New York Times. The new law went into effect June 25, five days before the close of the fiscal year. The report, dealing mostly with events that transpired prior to the effective date of the new law, contained a full report on the "elixir of sulfanilamide" catastrophe and the "cancer serum" episode of last spring. The Administration emphasized that the disastrous results came from the use of an untested and highly poisonous solvent, diethylene glycol, and not from the drug, sulfanilamide itself, which was recognized as a valuable curative agent when administered under competent medical advice. One new phase of enforcement is the investigation of the reworking of returned stocks of candy. Some manufacturers have been distributing objectionable goods, but the Administration was unable to act until it could perfect analytical methods that would prove convincing in court tests. A survey showed conditions were good in the great majority of plants where returned candy is reworked, but deplorably unsanitary in a few cases. "The campaign," says the report, "will be continued until interstate traffic in this type of filthy confectionery is stopped."

N.C. County Cooperation

"The advantages of cooperation, the value of winter legumes and the necessity of crop control are all being demonstrated on a gigantic scale by 400 Bertie county, North Carolina, farmers this winter under the excellent leadership of County Agent B. E. Grant," says an editorial in the Southern Planter (December). "Under a special compensation from the Agricultural Adjustment Administration, farmers in four eastern North Carolina counties--Pender, Duplin, Hertford and Bertie--were allowed to purchase winter legume seed and pay for them out of their benefit checks earned by cooperating in the agricultural conservation program. Farmers in the first three counties secured 28,000 pounds of vetch seed and 12,000 Austrian winter peas. But in Bertie, meetings at which the program was thoroughly explained were held in every community; leading farmers urged their neighbors to fall in line, and as a result of the campaign 88,000 pounds of vetch and 62,000 of Austrian winter peas were bought in Bertie. Thus 5,000 acres of winter legumes are growing luxuriantly in that one county this winter from seed that did not cost the growers one penny in cash. What this will mean in terms of soil fertility saved, and nitrogen added when turned under next spring, can best be illustrated by remembering that a rank growing winter cover crop prevents the equivalent of 300 pounds of nitrate of soda from washing out of each acre of soil from September to April, and if a legume, it adds the equivalent of 500 pounds of nitrate of soda when turned under."

DAILY DIGEST

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Vol. LXXI, No. 48

Section 1

December 9, 1938

COTTON CROP ESTIMATE

The Agriculture Department reported yesterday this year's cotton crop is estimated at 12,008,000 bales of 500 pounds, gross weight, compared with 12,137,000 bales forecast a month ago, 18,946,000 bales produced last year, and 13,201,000 bales, the average production for the 10 years 1927-36. The Census Bureau reported cotton of this year's growth ginned prior to December 1 totaled 11,233,157 running bales, counting round as half bales and excluding linters, compared with 16,175,505 bales for last year and 11,493,140 bales for 1936. The Crop Reporting Board estimated a yield of 226.8 pounds of lint cotton to the acre on the 23,346,000 acres estimated for harvest after abandonment of 3.1 percent of the 26,144,000 acres in cultivation July 1. (A.P.)

INDUSTRIAL COOPERATION

The National Association of Manufacturers late yesterday unanimously approved a 1939 platform urging "cooperation with the government." Without argument on the floor, the convention approved a program drawn up after a fight in the resolutions committee. The faction which favored cooperation with the New Deal succeeded in: preventing open criticism of the whole policy of the reciprocal trade agreements; striking out a proposal to revise the Wagner act; eliminating another proposal to abolish special federal regulatory commissions. (A.P.)

Increased research and experimentation by industry as a means of developing new revenues to national prosperity and buttressing the economic foundations upon which the nation rests was urged by speakers at yesterday's session of the Congress of American Industry. The speakers included Dr. William H. Dow, president of the Dow Chemical Company; Dr. Carl Breer, director of Research for the Chrysler Corporation; and Dr. Isaiah Bowman, president of Johns Hopkins University. (New York Times.)

REORGANIZATION IN GOVERNMENT

President Roosevelt took steps yesterday toward reviving his plan for reorganization of the executive branches of the government, which was defeated in the last session of Congress. Ways and means of bringing the measure before the coming session were discussed by the President with Senator Byrnes, who piloted the omnibus bill through the Senate earlier this year; Luther Gulick and Charles E. Merriam, two of the original authors of the plan. (New York Times.)

Production E. B. Reid, of the Farm Credit Administration, in a
Credit Loans short article, "Farmers Become Their Own Bankers," in
 Better Crops With Plant Food (November) says in part:

"Each production credit association has a committee of the farmer-directors who decide upon the merits of every application for a loan... Production credit associations are designed each to cover a territory which will insure the organization's becoming self-supporting through adequate loan volume and the resultant income from interest. In the nation's areas of concentrated farming this means two or more counties may be embraced by a single association. The more sparsely operated territories of the West, where livestock is the prevalent type of production, in some cases are served by a single State-wide association...As with other permanent credit units of the Farm Credit Administration, loans offered by production credit associations are 'custom made'; they are tailored, form-fitting, to the borrower's needs. This is the first consideration. The life of the loan is synchronized to the life of the commodity it is designed to finance; and interest--on a per annum basis--is charged, nevertheless, only for the actual time the borrower makes use of the money. It does not require a year to plant and harvest a winter wheat crop; the grain farmer repays his loan in about nine months. A dairyman borrowing from an association for the purchase of more cows is allowed to make monthly repayments from his milk and cream checks... Such loans usually run from 12 to 18 months. In the financing of the purchase of farm machinery and fertilizer the production credit associations have assisted farmers to cut down their interest payments through cash buying..."

Terracing "Tests at the Spur Experiment Station in West Texas--
Profits directed by M. R. Bentley, farm engineer--show that an
 inch of rainfall, when saved for cotton-production by
terracing the field, has a cash value of \$3.69 an acre," says the San Antonio Express (November 30). "Mr. Bentley conducted the experiment with two 10-acre plots. One field was terraced in the approved manner, so that all the rain which fell on it was caught behind earthen embankments following the lay of the land and allowed to sink into the subsoil as reserve moisture. The other field was cultivated in the usual way, but the engineer installed measuring-devices to determine how much water ran off. The comparative records reveal that the terraces saved a little less than 24 inches of rain. Holding the water on the land increased production by \$86 an acre...Thus it appears that the terracing process more than paid for the land during 11 years. Besides, the crop-value does not represent all that was gained. Other tests have indicated that as much as 40 tons of earth wash off an acre in a year from a field that is not terraced. In that manner 20 times as much plant food as a cotton crop would take up is lost. That is, in one year the farmer loses by erosion soil-elements which cotton would take 20 years to consume. Here, in plain figures, is evidence to bear out the soil-conservationists' familiar assertion that a field does not wear out, but rather is washed or blown away."

**Egg-Poultry
Situation**

Recent important developments in the poultry and egg situation during November, says the Bureau of Agricultural Economics in the summary of its December 1 report, were (1) a continued favorable feed-egg ratio, (2) an increased into-storage movement of dressed poultry, (3) continued low chicken prices, (4) a record high rate of egg production per farm flock, (5) a less-than-seasonal advance in egg prices. Though turkey prices recently have been slightly below those for last year, a favorable outcome for producers is expected because of lower costs of production. Therefore, a further increase in numbers of turkeys is likely in 1939. (The American Produce Review, December 7.)

**Farm Cash
Income**

The Bureau of Agricultural Economics has estimated that cash income to farmers for 1938 would total approximately \$7,625,000,000, a decrease of about 11 percent from the \$8,600,000,000 in 1937. The Bureau said this decrease was caused principally by a drop of 20 percent in receipts from crops and a drop of 8 percent in receipts from sale of livestock and livestock products. Government payments during 1938 showed a marked increase over 1937, the Bureau said. Such payments are expected to total around \$500,000,000 this year against \$367,000,000 last year. Gross income to farmers, including government payments, cash income, and value of goods consumed on farms, are estimated at \$8,875,000,000 in 1938 against \$10,003,000,000 in 1937, the Bureau said. (Wall Street Journal, December 3.)

**Argentine
Committee**

To supervise Argentina's commercial treaties and foreign interests, the Argentine Government has appointed a permanent interministerial committee of representatives of the Foreign Office and the Departments of Finance and Agriculture, according to the Argentine Information Bureau. All future treaty negotiations will be under the unified control of these three departments, according to the bureau. (New York Times.)

**Farm-Industry
Incomes**

"In recent years studies by the U.S. Bureau of the Census, the Works Progress Administration, and other agencies have given some surprising figures on the number of farmers who have income from sources other than their farm," says an editorial in the Progressive Farmer (December). "A summary of the surveys indicates that southern farmers are obtaining annually an extra half to three-fourths billion dollars income from non-farm sources. Of particular interest in these surveys also is the relatively large proportion of owners, appearing in the part-time operators' class and the general tendency, with the coming of automobiles, good highways, the radio, and electric high lines, for the cities to spread out. Many full-time farmers have felt that families earning both a non-farm income and selling farm products were unfair competitors, also that the removal of urban families to the open country reduced the sales of their own products. That there is some sales competition and some reduced volume of

Farm-Industry Incomes (continued)

sales is undoubtedly true, as the surveys also indicate. But it is also true that in many sections industrial employment directly adds to farm income more than farm products add to industrial income. In short, a combination of farming and industry, as some leaders are advocating, seems to be becoming a permanent plan with many families, seems to make for family stability, and is adding definitely to the total farm income of the South."

Loans in

Edward H. Collins, of the New York Herald Tribune, in Warehousing in Banking (December) describes field warehousing. He says in part: "So far as the banker is concerned--and particularly the country banker--the importance of field warehousing is not that it introduces a new form of collateral, but that it extends the use of such collateral to many new products...With field warehousemen anxious to bring bankers and businessmen together, and with warehouse receipts issuable now against such a wide assortment of products there is much less reason than before for the country banker to yield a monopoly on this type of commercial loan to his city cousin. Obviously, he is better acquainted with the loan situation in the case of his own local industries than a banker many miles away...Moreover, it must be remembered that although the national bank law and many state laws strictly limit the amount that may be lent to one customer on an open line of credit, the bank with small capital is not similarly handicapped when it comes to sound collateral loans against self-liquidation collected in the form of warehouse receipts. Thirteen states, for example, have no limit on the amount that may be lent on this type of security, while national banks may in exceptionally favorable cases, lend as much as 60 percent of the capital. Fourteen states are exceptions to this general rule. But even when this is the case and the country bank finds that it is not in a position to swing as much business as it can get, there is always the alternative of sharing such loans with its city bank correspondent."

Monthly Chick

"New chicks, every month in the year, is a new plan Hatching that is gaining in popularity among poultrymen," says the Poultry Item (December). "The new plan may change the entire poultry program, at least in the production of poultry meat and eggs, says R. C. Ogle of the New York state college of agriculture. It is a trend away from 'putting all your eggs in one basket'. Poultrymen who have adopted the new program say that the use of equipment throughout the year is efficient and that a more or less constant supply of new pullets, just starting to lay, should prove profitable. Regardless of the method, says Mr. Ogle, early-hatched pullets, late-hatched pullets, or pullets on any other plan, can give results only in proportion to correct breeding, feeding and management practices. 'The profitableness of a flock of laying pullets is determined largely by the number of eggs the pullets lay and the length of time over which they lay them. In general, birds of the Mediterranean varieties are best when they lay their first eggs at not less than 150 days after hatching, and birds of the American varieties not less than 180 days after hatching.'"

DAILY DIGEST

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Section 1

December 12, 1938

CROP CONTROL REFERENDUM

Secretary Wallace declared last night that results of Saturday's farm referendum, in which cotton growers approved and rice and flue-cured tobacco producers rejected marketing controls, signified permanence for the New Deal's farm program, says an Associated Press report. "The national farm program as a whole, open to producers of all crops, will go on," he asserted. The agricultural chief explained the tobacco and rice rejections expressed a belief of many growers of these commodities that their price and supply situations were not serious enough to warrant marketing restrictions next year. On the other hand, cotton farmers, he said, realized "there was no prospect that foreign and domestic outlets would take enough cotton to bring the supply down to manageable proportions without the continuation of existing control measures."

CIVIL SERVICE RETIREMENT

Contemplated changes in the civil service retirement law to be considered in the next session of Congress were discussed last night by the Joint Conference on Civil Service Retirement. Robert H. Alcorn, chairman of the conference, representing the civil service employees of the United States, explained that conferences are now being held with leaders in both branches of Congress and with various organizations of government employees, as a result of which a program of legislation to be urged at the incoming session relative to changes in the retirement law will be prepared. Chairman Bulow of the Senate Civil Service Committee and Chairman Ramspeck of the House Civil Service Committee have pledged their best efforts to improve the retirement law. (Washington Post.)

FREIGHT RATES

The Interstate Commerce Commission, in a 6-to-4 decision, authorized yesterday higher freight rates on mahogany than competing native woods, says an Associated Press report. The commission gave permission to the railroads to increase mahogany rates by 10 percent. The increase on native hardwoods was limited to 5 percent in the general freight rate case last spring.

Chairman Jones of Texas, of the House Agriculture Committee, said yesterday the Interstate Commerce Commission should required railroads to make blanket reductions in export freight rates on farm products. "This would be in line with present export freight reductions which already apply to industry," he added. (Press.)

Quick Freeze Experiments Continuing experiments in quick freeze preservation of foods, refrigeration experts at the University of Tennessee engineering experiment station will construct a machine with a capacity four times that of an experimental machine developed last year. The work is being undertaken in conjunction with the Tennessee Valley Authority. The experimental machine is to be completed by next spring, and first tests are to be made at Cleveland, Tenn. It will occupy a space 10 ft. wide, 16 ft. long and 3 ft. high, and will have a capacity of one ton of frozen products an hour. The present experimental unit was used to process 200,000 lbs. of frozen fruits during the past season, turning out 500 lbs. an hour. "We believe that our freezing principle is a superior one as demonstrated by the ready market acceptance and comments of users," said R. Brooks Taylor, who is in charge of the project. "By the new process we are able to freeze the product very rapidly, yet at not too low a temperature, and thus the ice crystals which form are very small and do not break down the cell walls of the product. The larger the crystals, the less desirable the product when it is defrosted. Strawberries frozen by this new process have been compared favorably with fresh strawberries as we have been successful in preserving their distinctive fresh flavor and texture to a marked degree..." (Ice and Refrigeration, December.)

Nutrition and Conservation The December issue of Plan Age contains a paper on "Human Conservation and Nutrition" by Hazel K. Stiebling, of the Bureau of Home Economics. She discusses nutritive requirements of the body; nutritive values of food; food consumption habits; and improvement in nutrition. "Improvement in nutrition," she says in the last few paragraphs, "is contingent upon one or more of at least three factors: (1) Improved purchasing power through increased incomes, lower food prices, or both; (2) The allocation of a somewhat higher proportion of the income to food in view of greater appreciation of the long-time significance of dietary adequacy; (3) The more efficient use of money now devoted to food, through wider dissemination of knowledge regarding food values and nutritional needs. In many sections of the country there is also need among farm families for the production of more food for family use. And most farm families would benefit if they would develop their home-production programs so as more directly to take account of the family's nutritional needs. Improvement in nutrition calls for the best efforts of those formulating social policies, of persons engaged in production both on farms and in factories, or research workers, teachers, social workers, and of all others concerned with human conservation. The benefits of good diet, added to those of other scientific advances which function for human progress, are not merely biological benefits to health. As Sherman points out, they 'contribute through health to the social evolution of the race and to ever higher levels of intellectual and spiritual achievement by the individuals who will so develop their innate capacities.'"

Holstein Cow The Farmer's Magazine (Toronto, December) reports
World Record a new world record for a Holstein cow, Regisborne Alice
 Alcartra, owned by an Ontario farmer. "Her 3-year-old
record of 25,460 pounds milk and 916 pounds butter fat, in 365 days
and on twice a day milking, gives her a world record both for milk and
butter fat in her class. Similarly in the 305 day division, her pro-
duction of 22,227 pounds milk and 816 pounds fat, is a world record.
This record also displaces those made on 3 and 4 times a day milking...
Consistency throughout, rather than high months, marked the attainment
of this record. At the end of 9 months, she was still giving around
90 pounds daily, and finished, giving 50 pounds per day..."

Homogenized Housewives of the future will no longer have to turn
Milk Forecast the milk bottle upside down to mix the cream as milk will
 have no cream line. Both milk and cream will have been
thoroughly mixed beforehand by machines under 2,500 pounds of pressure.
So say members of Cornell University's Dairy Department. The new homo-
genized milk will be of smooth even texture, color and taste. All the
fat globules will be evenly distributed. The process used is similar
to that used for some time in the manufacture of ice cream and evaporated
milk. It is reported that several cities have adopted the use of this
milk in varying degrees, including Buffalo, Rochester and Utica in New
York state and several cities in other states and in Canada. (The
Creamery Journal, December.)

Idaho Bull Hoard's Dairyman (December 10) contains an editorial
Stud Plan on the organization of a bull stud by the Dairymen's Co-
 operative Creamery of Boise Valley, Idaho. It quotes
from the Dairymen's News Bulletin, which says in part: "Many bull asso-
ciations have failed...A more practical solution to the problems of
operating bull associations may be the substitution of carefully super-
vised bull studs. Several of these are in their second year of operation
in Idaho. The Idaho bull stud plan provides for the delivery of a stud
bull for service to the cow owner's farm, by truck or trailer. This
arrangement relieves the owner of the inconvenience of attempting to
lead, or load into a trailer, a cow that is not broken or accustomed to
such handling. Limited experience with stud bulls has shown that they
are handled more easily than the average cow, and that the cow owner
prefers delivered bull service to the inconvenience and time required
in transporting the cow. More efficient management practices may be
expected in operating a bull stud than in operating an association block
bull, and a much greater area can be more efficiently serviced with
fewer bulls. The Idaho bull stud plan is the first attempt on the part
of the state extension service to meet the breeding problems of the
small herd owner, except by organized bull associations which have failed
to accomplish their purpose when organized among small herds."

Chemicals Chemists at the University of Wisconsin are now using
From Wood bacteria to turn sugar, made from wood, into valuable
 chemicals. Butyl and ethyl alcohol, acetone and isopropyl
alcohol are among the chemicals which have been produced experimentally
by the fermentation of wood sugars. Sugars from trees like hemlock,
beech, maple and birch are no new thing, for in Germany there has been
much research on the problem and two methods--those of Bergius and
Scholler--are in commercial production. In the Scholler process dilute
sulfuric acid is percolated through shredded wood under pressure at high
temperature and a dilute solution of wood sugar is obtained. N.O.Sjolander,
A.F.Langlykke and W.H.Peterson of the chemistry department at the University
are using similar dilute sugar solutions as the starting point of their
fermentation process (Industrial and Engineering Chemistry, Industrial
Edition, November). (Science News Letter, December 10.)

Reclaimed Reclamation Commissioner John Page reported recently
Farm Land irrigation projects now under construction would fall far
 short of fulfilling the demand for productive farm land.
Page asserted in his annual report to Secretary Ickes that about 31,000
farm families eventually could be accommodated on the 2,500,000 acres of
land that would be brought under cultivation by the new developments.
"Even when all the new lands are made available under the present pro-
gram," Page said, "farms could not be provided for more than a portion
of these unfortunate families. Only through construction of additional
irrigation works for new and unoccupied areas can opportunities for
many to make homes be realized." Page said that federal reclamation
projects last year supported 222,681 persons on 51,834 farms and
650,826 in 254 project towns and cities of the western states. "Some
of the new projects will make settlement opportunities within a year
or two," he said, "but some like Grand Coulee in central Washington,
may take 20 years." Coulee, the largest of the reclamation projects,
ultimately, will bring 1,200,000 acres of fertile, but now arid land,
under irrigation. (Salt Lake Tribune, December 1.)

Dairy Herd "Dairy herd classification from a type standpoint is
Performance being added to the pedigree record of purebred herds,"
 says Kansas Farmer (December 3). "In what appears a suc-
cessful effort to parallel breed type with production records, the
Holstein-Friesian cattle breeders are having their herds classified
voluntarily, on a basis of conformation to accepted breed type. The
classification starts at Excellent, which would mean a cow ranked 90 or
above on the breed score card. Very Good and Good Plus come between 80
and 90; Good from 70 to 80; Fair from 60 to 70; and Poor below 60. The
classification is made by official judges, and this ranking is made a
part of the breed record of each animal. The breeder having his herd
classified agrees to surrender the certificate of registry of all
animals ranking Poor, and not to register bulls from cows over 4 years
old ranking Fair. This plan weeds out low type animals from the purebred
ranks. It makes a permanent record of the type of calves sired by cer-
tain bulls and cows, in addition to the production record obtained by
dairy herd improvement work. In other words, type becomes a permanent
record with each animal, instead of only a characteristic of the cow's
lifetime..."

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Section 1

December 13, 1938

EXCHANGE IN Secretary of the Treasury Henry Morgenthau, Jr., dis-
FOREIGN TRADE closed yesterday that the Treasury, with the approval of
 the President and the State Department, is studying co-
operative effort between it and the Treasuries of South and Central Ameri-
can countries in an effort to make available adequate exchange facilities
and otherwise stimulate trade between the countries. He said that the
study was in the preliminary stages and details were not available but
that anything the Treasury did would be coordinated with activities for
the same general purpose in any other governmental agency such as the Ex-
port Import Bank, which has authority to arrange credits under certain
conditions. (New York Times.)

COTTON Francis B. Sayre, Assistant Secretary of State, hailed
CONFERENCE yesterday the Anglo-American trade agreement as "the effec-
 tive reply to the defeatism which appeared in some quarters
after the Munich settlement." In a speech before the Cotton Conference
of the American Farm Bureau Federation, he also declared that "crop re-
striction means economic retrogression and lessening of national income"
and urged free trade to move American cotton into foreign markets. Sayre
praised the leveling of world trade barriers as of great importance to
the future of cotton and the South and to the national economy. (Associ-
ated Press.)

BRITISH BUY F. R. Wilcox, director of the marketing division of
U.S. WHEAT the U. S. Department of Agriculture, said yesterday that
 British millers had agreed to take an additional 5,000,000
bushels of American wheat under this country's export-subsidy program.
This would bring the sales to the United Kingdom under the program to about
25,000,000 bushels. At the same time, Mr. Wilcox expressed belief that
the department would reach its goal of disposing of 100,000,000 bushels of
the country's wheat through its subsidy program before the fiscal year
ends on July 1, 1939. (Associated Press.)

COTTON Moderate advances in cotton in response to the favor-
MARKET able southern vote on cotton marketing quotas Saturday
 developed yesterday, says a New York report by the Associated
Press. March sold off from 8.30 to 8.16 and closed at 8.21, with final
prices 7 points net higher to 5 lower. The market opened 2 to 6 points
higher in sympathy with firmness at Liverpool and the 84 percent favorable
cotton referendum.

Trade Pact
Progress

"Encouraged by the success in concluding a far-reaching trade agreement with Great Britain and enlarging an old one with Canada, officials of the State Department under Secretary Hull are proceeding with renewed vigor in efforts to reopen further the channels of international commerce through the process of reciprocal tariff concessions," says Turner Catledge in the New York Times. "...Already we have granted reductions in rates on about one-third of the duties, thus committing this government to stability so far as these tariffs are concerned. A tabulation just completed for the New York Times by the United States Tariff Commission shows that a total of 1,077 of the 3,200-odd rates in existing law actually have been reduced, most of them between 40 and 50 percent. It shows bindings of present duties on eighty-two more. These rate and duty concessions cover items the imports of which came into this country in 1937 to the total value of more than \$500,000,000, or nearly one fourth of our entire import trade for that year...The State Department has stressed the comparatively few concessions granted in relation to the many obtained. This has been particularly true of agricultural commodities, the officials assert. 'Literally hundreds of concessions in one form or another have been granted to us for our farm products in contrast to the relatively few limited concessions granted by us in favor of foreign agricultural products,' said a recent progress report issued by the Trade Agreements Section of the State Department. Emphasis has been placed on the many enlarged outlets for fresh meats, bacon, ham, lard, cured meats, extracts and other meat products; also for American citrus-fruit products and canned foods of various kinds...Seven agreements have given direct benefits to rayon and other synthetic textiles; five to cotton yarn and ten to various other cotton textile manufactures. Eleven of them favored American manufactures of drugs and cosmetics..."

TVA Erosion
Control Plan

Preparations are under way to launch a huge erosion control project in the 15 mountain counties of western North Carolina within the TVA watershed area, whereby between 2,000,000 and 4,000,000 trees will be planted on worn out, abandoned and eroding fields. An agreement was signed recently for this cooperative work between the Extension Service of State College and the Department of Forestry Relations of the TVA. The TVA will furnish the seedlings and the county agents, in cooperation with TVA foresters, will supervise all projects. The farmers concerned will furnish the necessary materials and do all the work in preparing the site for planting, the actual setting of the trees, and in giving the necessary protection from fire and grazing. Tree species available for planting are: black locust, yellow poplar, short-leaf pine, pitch pine, Virginia pine and white pine. (The Southern Planter, December.)

Civil Service The Civil Service Commission announces the following
Examinations examinations: Chief, Museum Division, \$4600, (unassembled),
National Park Service; Associate Physiologist, \$3200,
(unassembled), Bureau of Home Economics; Examiner of Questioned Documents,
\$3200 (unassembled), Veterans' Administration (for appointment in Washing-
ton, D. C. only); Biometrician, \$3800, Associate Biometrician, \$3200,
Assistant Biometrician, \$2600, (unassembled), Public Health Service;
Chief Artist-Designer, \$2600, Principal Artist-Designer, \$2300, Senior
Artist-Designer, \$2000 (unassembled); Assistant Parasitologist (Nematodes),
\$2600 (unassembled), Bureau of Animal Industry; Junior Meteorologist, \$2000,
(assembled), Optional subjects: (1) General Meteorology and Climatology,
(2) Hydrologic Meteorology, (3) Physical and Dynamic Meteorology, (4)
Synoptic Meteorology (Air Mass Analysis), Weather Bureau.

Applications for the examinations for Chief, Museum Division,
Examiner of Questioned Documents, Artist-Designer, and Junior
Meteorologist must be on file: (a) January 9, 1939, if received from
States other than those named in (b), (b) January 12, 1939, if received
from Arizona, California, Colorado, Idaho, Montana, Nevada, New Mexico,
Oregon, Utah, Washington, Wyoming.

Applications for the examinations for Associate Physiologist,
Biometrician, and Assistant Parasitologist must be on file: (a) January
10, 1939, if received from States other than those named in (b), (b) Jan-
uary 13, 1939, if received from Arizona, California, Colorado, Idaho,
Montana, Nevada, New Mexico, Oregon, Utah, Washington, Wyoming.

Planned Rural In Rural Sociology (December) Charles P. Loomis,
Communities Bureau of Agricultural Economics, discusses the develop-
ment of planned rural communities. He describes seven
rural resettlement projects and three "control" communities consisting
of an Indian-Mexican village, a Dutch truck farming community and a group
of farmers located on an irrigation project, and draws the following ten-
tative conclusions. "(1) There was no evidence of pronounced trends to-
ward secularization on the projects. Although the settler families did not
support their churches to the extent that residents of the Indian-Mexican
and the Dutch villages did, there is no evidence of a decline of interest
in religion. (2) Geographical factors, especially distance, play greater
roles in determining families which will associate on the resettlement
projects than in the other communities. (3) There are other bonds besides
distance which appear to be integrating elements on the resettlement pro-
jects. The associating families are often more dependent upon one another
for various types of assistance than in the other communities. Also
their children more frequently play together. (4) Pairs of associating
families tend to be similar in the extent of their community social par-
ticipation. (5) Families of high geographical ability, of high occupa-
tional mobility, and those low in participation in the community programs,
are not likely to become integral parts of new rural communities. These
characteristics are probably as important as any others which might be
considered in the selection of settlers for rural projects. (6) On re-
settlement communities there are 'grapevines' of association over which

Planned Rural Communities (continued)

rumors about project policies are communicated. If project officials desire to avoid difficulties they should be cognizant of these networks of relationships. They should, where possible, make project policies definite and clear. Project discussion groups and forums conducted principally by the settlers themselves might dispel erroneous rumors and misinformation which has often hindered project integration."

Bookmobile The traveling branch of the Gary (Ind.) Public Library in Indiana is a standard 12-foot house trailer converted into a library branch, says a Gary report in the American City (December). "The trailer is an innovation in that it overcomes most of the shortcomings of other types of bookmobiles, and greatly reduces the initial investment and the cost of operation. All the service is rendered inside, so that inclement weather does not interrupt schedules. The trailer calls at eleven locations for the same half-day each week, so that the people in each neighborhood know when to expect it. Books not in the trailer are supplied upon request the next scheduled visit. The outstanding characteristic of the trailer is that it does not tie up a truck all day. The truck leaves the trailer on location and goes about its delivery work, moving the trailer to a new location on its way back to the library. The traveling branch houses more than 1,500 volumes comfortably, and its maximum capacity is 2,000 volumes. It circulates more books in sparsely settled parts of the city than do some of our large branches in densely populated areas, and it costs only \$469, as compared with branches costing up to \$40,000 exclusive of bookstock..."

New England Robert T. Clapp, in charge of the Yale Forests, Yale Forest Damage University, writes in the Journal of Forestry (December) on "The Effects of the Hurricane Upon New England Forests." He says in part: "It will take from thirty to one hundred years to restore the woods to their former condition. Preliminary estimates of the loss in timber blown down indicate tremendous destruction. Maine reports about a quarter of a billion board feet of timber down, New Hampshire two billion, and the other New England states intermediate amounts. The total loss is probably between three and four billion board feet. Most of this timber is white pine, although in northern New Hampshire and Vermont much spruce and hardwood are down, and the loss in Connecticut is mostly hardwood. In general the older stands have suffered the most severely; in other words, New England's best timber is down. All state and federal forestry officials, lumber company executives, and forestry associations deserve the highest praise for the energetic and efficient way in which they immediately tackled the problem of recovery. It was soon realized that there are three phases of the problem which must be attacked in this order: first, the prevention of fire under the most hazardous conditions ever known in this region; second, salvaging as much as possible of the down timber in such a way as not to demoralize the lumber market; and third, restoring the productive capacity of the land for future timber crops."

DAILY DIGEST

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Section 1

December 14, 1938

FARM BUREAU FEDERATION

President Roosevelt told the American Farm Bureau Federation yesterday he was convinced the Administration's farm program is the best "that can be put into operation for the crop year 1939." He added, however, in a letter read to the convention at New Orleans, that "while the 1939 program is being put into operation, farm leaders should be making a diligent study to determine if additional legislation is needed to reduce price-depressing surpluses, to expand domestic consumption of such commodities, and to provide a more effective farm program for 1940 and later years." Edward A. O'Neal, federation president, told the convention earlier he considered that the agricultural adjustment act of 1938 and allied legislation provided "the best all-around farm program we have ever had." Other speakers agreed with him. To this, however, O'Neal and others added the reservation that the act was not perfect and should be stripped of "useless regulations" and given more liberal interpretation. (Associated Press.)

HOUSING PROGRAM

President Roosevelt yesterday approved an increase of \$1,000,000,000 in the capacity of the Federal Housing Administration to insure residential mortgages, thus giving further impetus to a program which has aided toward making 1938 the most prosperous year in home building since 1929. Acting on the advice of Stewart McDonald, Federal Housing Administrator, and under the authority of amendments to the National Housing Act approved last February, the President raised from \$2,000,000,000 to \$3,000,000,000 the amount of FHA insured mortgages which might be outstanding at any one time. (New York Times.)

FARM ACT CHALLENGED

A group of Georgia and Florida tobacco growers, attacking constitutionality of marketing provisions of the 1938 agricultural adjustment act, appealed yesterday to the Supreme Court. They appealed from a decision of a Georgia federal court which had been hailed by Agriculture Department officials as a victory for the new farm program and affecting all its marketing provisions. The growers sought to enjoin warehousemen from paying over to the government as a penalty one-half the purchase price of tobacco marketed in excess of quotas fixed under the act. (Associated Press.)

LCL Freight
Studied

Methods of making railroad less-than-carload freight traffic profitable, either through nationwide pooling or otherwise, are under consideration by a special committee of railway officials. Expansion of the Railway Express Agency to handle all the less-carlot business of the railroads, or the creation of one or more wholly-owned rail subsidiary organizations for this purpose are among the various methods under study. The railroads long have lost money on l.c.l. operations and in recent years have lost a large proportion of this traffic to the highway motor carriers. ICC Commissioner Eastman said recently that the railroads lost, on a full cost basis, nearly \$8 per ton on l.c.l. traffic. In studying methods for dealing with the l.c.l. traffic problem, the special committee is performing a dual function. Aside from the all-important matter of recouping traffic lost to the motor trucks and making the business profitable, the railroads must comply with a recent Interstate Commerce Commission order by sharply curtailing their relations with freight forwarders, through whom a large proportion of l.c.l. traffic now is combined and distributed. (Wall Street Journal, December 13.)

Timber in
Arkansas

"The virgin timber that once covered so great an area of Arkansas has in largest part been manufactured into lumber or cut for other purposes," says an editorial in Arkansas Gazette (December 3). "But State Forester Charles A. Gillett could take you to places in Arkansas where third and even fourth crops of timber have been cut from land once covered with virgin forest. He knows lumber operators whose records show that although their timberland has been lumbered continuously for more than 30 years there is more timber on the land now than when it was purchased. As a forester he declares that proper management and fire protection could increase timber production in Arkansas to about six times the present output per year and leave trees growing to replace every one that was cut...The 1,417 wood-using plants in Arkansas employ 30,543 men, and an additional 48,500 find employment in the forests, cutting and hauling logs. It would be of incalculable benefit to Arkansas and its people if every legislator and every other public official, every man, woman and child could know the facts about the forest situation and realize what general adoption of systematic forest protection and scientific management of timber crops could bring about..."

Karakul
Farm

As a means of improving the breed of Persian lambs in Texas, the Southwest Karakul Association, with headquarters in Fort Worth, assisted by the Extension Service of the State Agricultural and Mechanical College, and the U. S. Department of Agriculture, is arranging for the establishment in Texas of a government breeding farm where purebred Karakul bucks will be raised to be loaned free to breeders who desire to establish crossbred flocks. (American Fur Breeder, December.)

Carnegie Institution Dr. John C. Merriam, president of the Carnegie Institution of Washington for the last 18 years, retires at the end of the year, to be succeeded by Dr. Vannevar Bush, former vice president of the Massachusetts Institute of Technology. The retiring president told the trustees that co-ordination of all fields of research must be a major goal of science, since any discovery may have a direct bearing on some apparently unrelated subject. Dr. Merriam said: "...It becomes increasingly clear that one function of the Carnegie Institution lies in making possible such relation of its various types of specialized research to one another as will bring largest values for each research, and will also facilitate building upward in the broader scheme of knowledge. This process will depend in some measure upon acceptance of the idea that all elements of nature and of knowledge have inter-relationships. We now realize that no science can exist alone. No branch of knowledge can exist alone. All must be related to other knowledge if they are to attain their largest value." (Washington Star.)

Lockers for Auction The New Jersey Department of Agriculture recently announced that a cold storage locker system has been projected as an installation in conjunction with the Flemington Auction Market. This is the first cold storage refrigerator of its kind to be introduced in New Jersey. Clarence H. Stains, auction master at the Flemington Auction, said that "a new building will be constructed in connection with the auction which will have the entire first floor devoted to a complete locker plant, including slaughter, cutting, ageing, quick freezing, chilling and storage rooms. Although locker space will be made available to the 2,500 members of the Auction Association first, there will be no restrictions. Other families may rent the remainder. Rentals will be approximately \$10 a year for each locker." (New England Homestead, December 3.)

Poultry Digest Another of the "digest" magazines is the National Poultry Digest, of which a Specimen Number (Fall) has been received by the Department Library. In addition to condensations of poultry articles, research reports, bulletins, etc., it will contain a poultry statistics department. "Most of the tables of this department," it says, "will be lifted from various reports issued by the Bureau of Agricultural Economics." "The last or twelfth number in each volume will contain a complete index, with cross references, of all subject matter."

Massachusetts Land-Use Maps "When detailed land-resources maps of approximately 300 Massachusetts towns are completed," says the American City (December), "any citizen will be able to purchase for a negligible sum a complete set of five large-scale maps showing intimate, detailed and hitherto unavailable data concerning land use, land quality, land resources, land contours, roads, waterways, and the nature of all man-made structures and engineering works in all the rural areas in Massachusetts. More than half the job is already done as a WPA project..."

"Forest-
Scaping"

Forest-scaping is neither landscaping nor tree surgery," says James D. Curtis, Massachusetts State College, in the Journal of Forestry (December), "but a practical application of forestry in the field of silviculture supplemented by some principles of landscape architecture. Inasmuch as a landscape architect is most often concerned with artificial methods, even changing the contour of the ground to gain desired effects, and while the tree surgeon or arborist deals with individual trees only, forest-scaping can logically be placed in a category of its own. Its aim is to create and maintain the aesthetic and recreational value of forests (regardless of their size) in order that they may render the owner a perpetual return, at the same time serving the useful function of furnishing him some form of wood products. The aesthetic value may be achieved by the manipulation of the forest cover in such a way as to create appealing surroundings for himself and others to admire. For the sportsman, it may assume the form of increasing game populations or improving trout streams or, perhaps, for lovers of nature, increasing all wildlife. It may mean the construction of bridle paths or hiking trails, through woods which have been planned to produce pleasing effects. Forest-scaping endeavors to improve on Nature only by treating existing cover, encouraging it where there is none...Schools which offer pre-professional or professional training in forestry, as well as courses in landscape architecture, have unusual facilities for training men in this field. Certainly full advantage has not yet been taken of this phase of forestry in this country..."

County Social
Experiment

"Of interest to students of rural life is the work of the Greenville (South Carolina) County Council for Community Development," says Gordon W. Blackwell, Furman University, in a note in Rural Sociology (December). "The five-year project is financed jointly by a national foundation and Furman University. A council composed of some ninety citizens from the city and rural communities guides the work of general improvement of life in the county. Assistance in research and planning is provided by a staff of ten specialists trained in the fields of education, arts and crafts, social welfare, rural sociology, health, economics, government, recreation, drama, and music...Research activities of the staff working with citizens have covered a wide scope, including studies of educational retardation of children, the condition of Negro school buildings, Negro urban housing, various phases of Negro life, crime, social welfare agencies, health agencies, recreational facilities and needs, social welfare and health expenditures, and the like. But what is more important, citizens are taking the facts obtained from these studies and are planning remedial measures..."

DAILY DIGEST

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Section 1

December 15, 1938

USDA REGIONAL LABORATORIES The Department of Agriculture named yesterday the sites for four laboratories in which it will seek to solve the problem of crop surpluses. The laboratories, to be opened before July 1, will be built in Peoria, New Orleans and in the Philadelphia and San Francisco Bay areas. Congress appropriated \$4,000,000 for these laboratories and authorized a similar expenditure annually. Their purpose is to find new uses and new outlets in the human or industrial field for surplus farm products. Although each will center its research on the major farm products of its region, Secretary Wallace said the results would be nation wide in their effects. (A.P.)

REICHELDERFER President Roosevelt yesterday appointed Commander
WB CHIEF Francis W. Reichelderfer to be chief of the Weather Bureau, succeeding Dr. Willis R. Gregg, who died last September. Commander Reichelderfer is a graduate of Northwestern University, class of '17. After World War service he had charge of reorganizing and developing the Naval Meteorological Service. In 1923 he was assigned to the Naval Air Station at Lakehurst, N.J., and later served on several flights and expeditions as meteorologist. (New York Times.)

NYC PACKING The Federal Government intervened in the packing house
HOUSE STRIKE strike yesterday in the hope of averting a meat shortage and subsequent price hike in the (N.Y.C.) metropolitan area, says an Associated Press report. Dr. John R. Steelman, director of the conciliation service of the Department of Labor, sent a representative to Chicago to attempt a settlement. Representatives of the "big four" companies--Wilson, Armour, Swift and Cudahy--told the board that central offices in Chicago decided all questions of labor policy. Sixty wholesale packing concerns handling most of the refrigerated meat and poultry sold in New York City were affected by the walkout.

TVA MERIT The TVA investigating committee received a recommenda-
SYSTEM URGED tion yesterday that thousands of TVA employees be placed under Civil Service. Leonard D. White, former Civil Service Commissioner and now a professor at Chicago University, made the recommendation after a survey of TVA's personnel department. (A.P.)

Cricket Control The Department of the Interior announced recently that it would supply the manpower and equipment for a concerted drive next spring to rid the public range of the West of millions of forage-destroying crickets. R. H. Rutledge, director of the division of grazing, said Civilian Conservation Corps forces under his jurisdiction would be used in the eradication program. The work, he said, would be centered largely in Nevada, Oregon, Idaho, Utah, Washington, Montana, Wyoming, North and South Dakota, and Nebraska. One of the control methods to be used will be the erection of metal barriers beyond which crickets cannot pass. When they reach the barriers the crickets will fall into traps. Another method will be the dusting of infected areas with poisonous mixtures, which, while not harmful to livestock, will result in the destruction of crickets and their eggs. (New York Herald Tribune, December 9.)

4-H Club Training The Great Falls (Mont.) Tribune, in an editorial on the international livestock show, says in part: "It is a measure of the importance which agricultural and business leaders of the United States attach to the 4-H club movement when the biggest show of purebred products in the nation features the boys and girls and their exhibits on a par with those of the adult farmers of the continent. The 4-H club movement has won the complete approval of all interested in the progress of American agriculture. It is regarded as a great factor in the training of a more competent generation in the rural homes of the nation. The show staged by the youth from American farm homes is big time stuff. The products which they enter in their contests are of a superlative grade. The demonstrations of their training methods, the honors awarded outstanding individuals among them and the educational features of their gathering impress and interest the whole country. As a practical youth movement, the 4-H club has been a remarkable success in the comparatively short time it has been in existence. Its creation was an inspired idea which has caught the imagination and sympathy of all interested in rural progress."

U.S.-Canadian Wheat Meeting The problems involved in maintaining the North American export market for wheat were discussed recently at the Prairie Markets Conference by Canadian and American authorities, according to a Canadian Press report from Winnipeg. C.H.G.Short of Montreal, general manager of a milling company, stressed the importance for Canada of keeping the "empire markets", particularly Great Britain. L. A. Wheeler, chief of the Foreign Agricultural Service of the United States Department of Agriculture, admitted that the prospects of avoiding excess production were slim unless there were extensive droughts. R.M.Evans, AAA Administrator from Washington, said wheat acreage in the United States was not likely to be reduced beyond a total which would leave 100,000,000 bushels for export annually.

Broadcasts
from Farms

O. C. Redenbacher, County Agent, Vigo County, Indiana, reports in the Extension Service Review (December) that once a week a successful farmer, his wife, and a 4-H club son or daughter, relate their experiences direct from their farm, interviewed by the county agent, home demonstration agent, or assistant county agent. "No script is used in the presentation of these programs," he says, "other than a very brief outline of some of the major points to be emphasized during the program. Radio has been used as an extension teaching method in Vigo County, Indiana, since 1931. On October 1, 1938, the county extension office presented its 1,376th broadcast. Five-minute daily broadcasts are given direct from my desk by remote control... This eliminates trips to the studio and makes it convenient for the county extension agents to use the timely information coming to their desks. Meetings and demonstrations are announced. Spray schedules, feeding rations, and household hints are given from time to time. Frequently farm men, farm women, and 4-H club members participate in these daily broadcasts. Every effort is made to localize the information used by referring to farms and farm people, and as many names as possible are used during the broadcast. New material received from the Radio Service of the United States Department of Agriculture and the Division of Information at Purdue University is localized before it is given. These radio programs require very little time of the extension agents and provide one of the best means of contacting a large number of people who otherwise would not receive this information."

Billboard
Regulations

A program designed to rid Maryland's highways of billboards and to provide state regulation and inspection of roadside eating establishments, was indorsed recently by Maryland and District of Columbia leaders of the American Automobile Association. The District club indorsed the "uniform act," approved in the last national A.A.A. conference, under which state highway departments could set up a "protected area" extending 1,000 feet each side of highways, zone this area into commercial and non-commercial districts, and regulate roadside advertisements and eating places. Under the proposed act, billboards would have to be at least 50 feet from the highway. (Washington Star.)

Soil Defense
in South

The impoverishment and ruin of southern agricultural land, particularly in the Cotton Belt, by soil erosion is pictured in a new Farmers' Bulletin (1809), "Soil Defense in the South". "In the whole broad stretch of land known as the Cotton Belt," the bulletin declares, "there is little cultivated land, even where the slopes are gentle, that is not marred by erosion". Prepared by E. M. Rowalt, in collaboration with the Soil Conservation Service, the publication describes erosion-control practices for the Cotton Belt. A free copy may be obtained from the Department, Washington.

Restoration
of Wildfowl

"Ding" Darling, president of the National Wildlife Federation and former chief of the Bureau of Biological Survey, writes on ducks, in the Southwestern Sports Magazine (November). He says in part: "Improved water conditions in most of the breeding areas in the United States greatly helped in turning out the 1938 crop of wildfowl. From practically all observers in the north and west have come enthusiastic reports. That these were based on actualities was demonstrated when the Bureau of Biological Survey announced the wildlife hunting regulations--an extension of from 30 to 45 days in the season, a possession limit of 20 instead of 10, permission to include in a day's kill an aggregate of three canvasback, redhead, ruddy or bufflehead, the species that had been given complete protection because of their alarming scarcity. The number of wildfowl visible on any one particular flyway in the fall hunting season does not determine whether the basic supply is increasing or decreasing. The number reaching the breeding grounds in the spring is a most important factor. Excessive shooting may fatally trip the balance in one year. Drouth and other perils on the breeding grounds may wipe out all gains of the previous year...Our hopes for the future are founded on the estimates of wildfowl hatched and reared in the great restored areas, forever safe from the criminal exploitation of drainage sharks. Upper and lower Souris, Bear River, Crescent Lake, Lake Bowdoin, Sand Lake, Mud Lake, Nine Pipe and Pablo--hundreds and thousands of acres of sun-baked mud, of sterile, dusty flats from which cheated settlers had been starved out have had their water restored and are now rich with new life. Linking the breeding areas with the wintering ground are chains of federal refuges--upper Mississippi, Pea Island, White River, Mattamuskeet, Cape Romain, the vast sanctuaries of the Mississippi Delta region...Wildfowl have not 'come back'. They have been rescued from extinction by a gigantic effort. Scientific measures, applied on a continental scale, are overcoming the results of man's habits formed when the supply of game was unlimited."

Cotton Plane
Runways

A dispatch in the Christian Science Monitor (December 7) reports the recent dedication of a new government airport at Camp McClellan (Ala.) in which the cotton fabric, osnaburg, was used as a reinforcement for asphalt in the runway. The demonstration, says the report, is a joint project of the War Department and the Works Progress Administration and was arranged largely through Representative Sam Hobbs of Alabama. Construction of the runway consists of a four-inch treated sand clay base topped by alternate layers of fabric surfaced with $1\frac{1}{2}$ inches of asphalt. The fabric is laid in alternate lengthwise strips, 20 feet in width. The osnaburg used has a thread count of 12 for the warp and 12 for the filling with a minimum average breaking strength of 45 pounds for the warp and 45 pounds for the filling. Asphalt has been found superior to concrete for airport runways on account of its resiliency, but it is inclined to crack under usage by heavy planes. It is hoped that the cotton fabric will cause the paving to adhere more closely and to eliminate cracking under the wear and tear of planes and the weather.

DAILY DIGEST

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Vol. LXXI, No. 53

Section 1

December 16, 1938

SECRETARY'S ANNUAL REPORT

Secretary of Agriculture Wallace declared yesterday that a partial loss of foreign markets and prospects for a declining domestic demand for farm products after 1950 made government crop control a "more or less" permanent necessity. In his annual report to President, Roosevelt, Wallace said the Nation's agricultural industry had reached a productive capacity considerably in excess of present markets and possibly equal to any future needs.

"It is evident by this time," he asserted, "that we face a more or less permanent problem in agricultural adjustment, the sources of which lie deep in changed domestic and foreign conditions." These conditions were described as attempts of European nations to become agriculturally self-sufficient, technological advances and a decline in this country's rate of population growth.

Wallace said the depression had brought about a radical change in the government's task in aiding agriculture. Formerly it was the government's duty, he said, to help farmers expand production so that they might supply an increasing domestic market and large demands abroad. But because of changes wrought by the World War and the depression, it has become "essentially a problem of marketing rather than of deficient production," he added.

Looking toward the future, Wallace predicted that the crest of the Nation's population--which he placed at 10,000,000 in excess of present figures--may be reached by 1950 or 1960. "Only a small increase in our harvested acreage will be necessary to provide for the probable future increase in population, even if the demand for exports remains undiminished. Should the export demand decline, or if mechanization continues to supplant horses and mules, or if technological improvement continues, no increase in crop land may be necessary before the Nation's population becomes stationary."

He said there were only three principal ways of dealing with the problem of surpluses: Stop production of excessive supplies and divert agricultural land and labor "wholesale" to other ends; store surpluses in the hope of marketing them eventually; adjust farm production "moderately" through means that keep farm land and farm people employed, and to deal meantime in special ways with surpluses that accumulate unavoidably."
(Associated Press.)

Teaching "During the past year or so teachers have made an
Conservation unparalleled demand upon state and federal agencies for
 conservation teaching helps," says Wilda Grim Quimby in
Conservation (November-December). "...It is generally conceded that we
can go only as far in this business of conserving our resources as public
opinion will permit. We have seen time and again that we cannot
give people a desire to do a thing simply by passing legislation which
compels them to do it. If a genuine desire to conserve our resources
is not present in the minds of our people we are doomed to failure from
the start. It is human nature to be indifferent to situations which we
do not understand. Our job then, is to see to it that everyone is in-
formed of the true need for conserving our resources..Teachers are eager
to do their part in this patriotic work. The big problem at present is
the one of supplying them with suitable teaching materials. A bibliography
telling them where to go to find information is not enough. Most of the
references available are much too technical for their use. In Michigan
and Wisconsin the state departments of public instruction are cooperating
with the conservation departments in preparing conservation teaching
helps. In the United States Forest Service a new section in the educa-
tion department has been set up for the purpose of developing usable edu-
cational materials to meet the demand of teachers..."

Farm Mortgage A further decline in farm-mortgage debt during 1937
Debt Declines is reported by the Bureau of Agricultural Economics in
 the November issue of the Agricultural Finance Review.
The farm-mortgage debt is estimated at \$7,082,156,000 as of January 1,
1938, compared with \$7,254,821,000 a year earlier. This represents a
decline of 2.4 percent for the year. A further decrease is indicated
for the first half of 1938. The decline during 1937 is a continuation
of a trend for the past 9 years. During the first part of the 9-year
period from 1930 to 1938 the decline in farm-mortgage debt resulted more
from farm foreclosures and other distress transfers involving surrender
of title by owners of mortgaged farms. According to estimates of the
Bureau, the number of farms changing hands as a result of forced sales
and related defaults rose from 20.8 per 1,000 farms in 1930 to 54.1 per
1,000 farms in 1933. Following 1933 the volume of farm foreclosures de-
clined, reflecting both the farm debt refinancing of the federally spon-
sored credit agencies and the improved income of farmers. Although debt
liquidation through foreclosures has continued to be an important factor
in the decline of farm-mortgage debt, the improved income of farmers,
it was stated, has permitted substantial reductions through normal debt
repayments in recent years.

Chestnut
Breeding

G. L. Slate, Secretary of the Northern Nut Growers Association, reports in American Fruit Grower (December) that "Ir. A. H. Graves, of the Brooklyn Botanic Garden, is trying to develop, by breeding, a type of chestnut totally resistant to the blight and, at the same time, a forest tree suitable for timber, or, in other words, a good substitute for the American chestnut. The Chinese and Japanese species of chestnut are more or less resistant to the blight, but are not suitable for timber because of their low-growth habit. These species are being crossed with the American chestnut in an attempt to combine the blight resistance of the former with the growth habit of the latter. To date Dr. Graves has produced more than 600 hybrid trees from over 50 different combinations involving the above mentioned species as well as other chestnut species. Dr. Graves' hybrids are fruited in Connecticut in natural chestnut country where there are many diseased sprouts from the stumps of old American chestnuts. The susceptible hybrids are soon eliminated by natural infection. A more severe test is given, however, and the hybrids are inoculated artificially to insure that all are given an opportunity to demonstrate any blight resistance which they may possess. This test is repeated for three years..."

Turkey
Co-ops

Constant improvement of quality is a contribution of turkey cooperatives to the industry, says the Farm Credit Administration. Strict grading practices, pioneered by the co-ops, are being instituted more generally throughout the industry each year. The cooperatives, handling approximately 20 percent of the total turkey crop, according to a recent survey made by the Farm Credit Administration, have been by far the most active group in the industry in the adoption of the U.S. Department of Agriculture's standards and grades for dressed turkeys.

Plant Breeding
Progress

"...In recent years intensive inbreeding and cross-breeding of plants has made it possible to fix desirable characters and eliminate those which were undesirable," says an editorial in Kansas City Star (December 7). "Practically all the approved varieties of the major field crops have originated at experiment stations or on farms where the operator has had fundamental training in plant breeding. The wheat improvement program inaugurated in Kansas last year indicates the possibilities of field selection. Samples of wheat actually used for seed by farmers in a locality are grown side by side for comparison. Observation of purity, date of maturity, disease resistance, strength of straw, are easily observed. After harvest yields, grades and test weights are determined. This is as far as most experiments go, but in the Kansas program milling and baking tests are added... Plant breeders, when they have full and complete knowledge of all of the characteristics of any variety, are able through inbreeding and cross-breeding to perpetuate the good and eliminate the bad features. They can in this way produce new varieties superior to either of the parent

Plant Breeding Progress (continued)

stocks. It is a tedious process, one that has to be tested out through a series of years and under widely divergent conditions before seed can be safely used on any farm. The plant breeding work is being carried on in all states where wheat and corn are grown extensively. Better varieties than any now in use are certain to be developed. The conscientious plant breeder is doing a real service..."

Inter-American Highway In the Bulletin of the Pan American Union (December) Herbert C. Lanks is author of an illustrated article on

"The Inter-American Highway," that portion of the Pan American Highway going through Mexico and the Central American countries to the Panama Canal. The author and a companion took photographs, including motion pictures, along its 3,246 miles. The article says that the film from the motion picture will soon be ready for distribution through the Board of Highway Education, Pan American Union, Washington.

Truck Peddling Regulation "Bills designed to regulate peddling by motor vehicle and to drive dishonest and irresponsible truckers off the public highways will be presented for consideration before several of the state legislatures during the coming sessions," says an editorial in the Grain & Feed Review (December). "Nine state groups, representing more than a hundred organizations in the Middle and Southwest, have banded together under the name of the Associated Distributors & Producers. The purpose of this organization is to push truck regulatory bills through the legislatures in these states...The thought behind this is not to drive trucks off the roads nor to force the honest and businesslike trucker to cease operations...The bills to be presented are quite similar...The Minnesota bill specifically exempts farmers transporting and selling products raised on their own land..."

Thatcher Wheat Food Manufacture (London, December) reports: "Extensive tests conducted over a number of years in Canada, in Britain the United States and finally commercial milling and baking tests in Great Britain this year have shown that Thatcher (wheat) compares favorably with Marquis and other varieties eligible for the highest Manitoba grades. The Board of Grain Commissioners has included Thatcher in the list of varieties eligible for the highest grades; and, in view of the extensive seeding of this variety this year, it is anticipated that appreciable quantities will appear in export shipments of the forthcoming crop. It is a crossbred wheat developed at the Minnesota Experiment Station...The introduction of this wheat into Canadian cultivation marks a step forward in that important wheat country."

Cattle Income The cash income of \$1,217,000,000 realized by cattle producers in 1937, was the largest in 8 years, the Bureau of Agricultural Economics reports in the fourth of a series of reports on commodity income estimates dating back to 1909.

DAILY DIGEST

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Vol. LXXI, No. 54

Section 1

December 19, 1938

TRADE FACTS

A Lima (Peru) report by the Associated Press says the Pan American Conference has unanimously approved a United States resolution for reduction of international trade barriers.

An Istanbul (Turkey) cable to the New York Times says a new trade agreement between the United States and Turkey has been initiated at An-gora. The agreement is subject to final approval by the two governments but will probably be signed next month. The new compact provides unconditional most-favored-nation treatment and is the first of its kind to be concluded between the United States and a Near Eastern country.

WHEAT LOANS

The Commodity Credit Corporation has announced that December 31 will be the deadline for the granting of government loans to farmers desiring to withhold surplus wheat from market for possible higher prices in the future. (A.P.)

U.S.-CHINESE TRADE CREDIT

The Export-Import Bank has granted China credits of \$25,000,000 to finance Chinese-American trade. Jesse H. Jones, chairman of the Reconstruction Finance Corporation, said the funds will be used in connection with exportation of American agricultural and manufactured products to China and importation of tung oil from China. (A.P.)

SOUTHEASTERN R.R. FARES

The Southeastern (Railroad) Presidents Conference says it has "voted in favor of reestablishing a basic fare of 1 1/2 cents per mile on coaches, to become effective as soon as tariffs can be published. The effective date will probably be some time in January." Eastern railroads now have a basic coach fare of 2.5 cents. In all other sections it is 2 cents. (A.P.)

TOBACCO QUOTA VOTE

The Nation's producers of burley and dark type tobacco have rejected federal marketing controls on their 1939 crops. In referenda held in 14 southern and midwestern states, the tobacco farmers failed to give the necessary two-thirds majority to proposals of the Agricultural Adjustment Administration that it be authorized to impose marketing quotas to restrict sales. (A.P.)

"Electractors" K. R. Frost, University of California, reports in
for Gardens Electrical West (December) on experiments at the University's laboratory at Davis in developing small electric motors as power units for garden tractors. "Two tractors, varying widely in design, size and method of cultivation," he says, have been developed at the laboratory. "The first tractor was powered with a 1 1/2 h.p., 220-volt, single-phase, variable-speed, brush-shifting a.c. motor...The digging unit will either lead or follow the motor. It is possible to till close to or under vines or shrubs. Trial tests showed that this tractor can cultivate 4 inches deep at a speed of 0.7 m.p.h....The machine should be powered with a 2 or 3 h.p. motor. Latest work on electric tractors has been concentrated on a small, one-wheel cultivator powered with a 3/4 h.p. motor installed in the center of the drive-wheel...Because of the high cost per unit and the necessary transmission lines, university engineers concerned themselves entirely with the development of small units. However, results determined from tests of these units can, with certain modifications, be applied to larger units."

Foot-and- American Cattle Producer (December) in an item on foot-
Mouth Disease and-mouth disease, says in part: "Reports from Europe show an increasing number of countries adopting the policy that the United States has used in outbreaks in the past--that of slaughtering the diseased animals. Costly as that measure is, England has used it on thousands of cattle. Sweden slaughtered animals to stamp out its outbreaks. Denmark has adopted that method of controlling the disease, and perhaps other nations. Here is further evidence--in this wider use of the slaughter method of combat--of a growing realization that the disease will permit of no half-way measures."

USDA Texas Texas Farming and Citriculture (December) contains a
Laboratory condensation of a paper by J. L. Heid (Bureau of Chemistry and Soils) in charge of the U.S. Fruit and Vegetable Products Laboratory in Weslaco (Texas). He says in part: "Our laboratory was authorized to extend the scope of its work to include general fruit and vegetable products at the beginning of the fiscal year. (it was formerly a citrus products laboratory). With the aid of the Texas Experiment Station and commercial operators it has been possible to demonstrate several possibilities. The first year's test of five varieties of tomatoes revealed three varieties with real commercial promise for tomato juice and catsup manufacture, although it has been said that high quality tomato products could not be prepared from tomatoes grown in the South. If Texas canners can pack tomato juice and catsup equal in flavor, color and texture to northern packs, they will have a transportation advantage in supplying southern markets with these products." He also reports that the laboratory has developed a formula for making grapefruit butter from the pulp separated from the grapefruit juice when it is screened for canning.

Photography in Biology Biology, of all the sciences, stands to profit the most from "the revolution that is taking place in photography," Ernest D. Dale, botanist, believes. "The fast lenses and adaptability of modern cameras will greatly increase the variety of biological subject matter," Dr. Dale said at a photographic exhibit at Union College (N.Y.). Modern cameras, he asserted, reveal in organisms not only movements too fast but also those too subtle to be detected by the unaided eye. "For example," he said, "lapsed time photographs of growing plants show they exhibit characteristic movements; the flowers and stem tips nod and gyrate in rhythmic movements. These are imperceptible to the eye. Periodical contractions in cell divisions and in the very early embryonic stages of certain animals have likewise been demonstrated by the camera. And more striking, perhaps, are photographs of birds in flight, which show wing positions that the eye never sees." (A.P.)

Legumes for Soil Building "Partly as a result of government aid in its agricultural adjustment program, the country as a whole is making much progress in the planting of legumes for soil building," says E. B. Ferris in American Cotton Grower (December). "Mississippi, for instance, has increased the amount of winter legume seed planted from a few million pounds five years ago to eighteen million pounds in the fall of 1937. The use of summer legume seed has apparently increased in somewhat the same ratio...For two years, the writer conducted tests with summer legumes in some 35 counties (hill) of Mississippi extending from the Tennessee line to the gulf, planting crotalaria, sesbania, and soybeans, with and without added minerals, and found that without exception all three of the crops were greatly increased in yield by adding minerals. Cooperative tests conducted by the main station at State College with individual farmers and Smith-Hughes schools showed the same thing with other legumes, while similar work done by the Soil Conservation Service, especially with winter legumes, clearly indicates that our hill soils generally respond marvelously to applications of minerals, especially phosphates, under legumes...The need for more minerals in these hill soils not only applies to such legumes as cowpeas, soybeans, vetch, winter peas and crimson clover, but as well to their close relatives, lespedeza, hop and white clovers. This has been proven by recent pasture experiments at the Holly Springs Station...While the work is far from being concluded, results for the first year show that added minerals, especially phosphates, have not only doubled the actual forage produced, but that the chemical composition of this forage has been changed...For instance, where phosphates predominated in the fertilizers used, the percentage of protein was increased more than 2 points, or from 9.24 to 11.41 percent; calcium from .97 to 1.32 percent; and phosphoric acid from .25 to .49 percent..."

Idaho Potatoes Idaho's famous potato has gained 105 new markets since advertising it over the nation, Carl De Long, secretary of the Idaho Fruit and Advertising Commission, said recently. De Long estimated that \$1,800,000 more money will go to farmers and businessmen this year as a result of Idaho's advertising campaign. (Idaho Statesman, December 6.)

Research Directors Four young government scientists, with an aggregate service of 53 years in the Agriculture Department, have received appointments as directors of the four new federal agricultural research laboratories, says an Associated Press report. Dr. Henry G. Knight, chief of the Bureau of Chemistry and Soils, who will be in charge of the work to find new uses for surplus farm commodities, announced the appointments as follows: O. E. May, 37, for the northern laboratory at Peoria, Ill.; D.F.J. Lynch, 47, for the southern laboratory at New Orleans; P. A. Wells, 32, for the eastern laboratory in the Philadelphia area; and T. L. Swenson, 44, for the western laboratory in the San Francisco Bay area. Each of the new directors served on a special committee that studied agricultural research problems during the summer. Earlier in the day Secretary Wallace said the principal purpose of the laboratories was to "give a break" to the farmer in technological progress. He asserted that technological developments had created products competitive with farm commodities and added that the new government laboratories would "give assurance that farmers will have at least as good a chance of being helped as harmed by technology."

FSA Farm Purchase Loans The Farm Security Administration reported last week that more than 144,000 tenants, share croppers and farm laborers had applied for government loans to purchase farms since the program began about a year ago. Loans made up to last July 1 numbered 1,885. Money is extended to applicants approved by local county committees. Borrowers have forty years in which to repay their loans. Officials said they expected the loans to total 5,000 by next July. (A.P.)

Fewer Hoppers Predicted "Grasshopper outbreaks in the states west of the Mississippi River are not likely to be so severe in 1939 as they were in 1938, the Department of Agriculture predicts," says the Northwestern Miller (December 14). "Destruction of hordes of hoppers by poison last summer, combined with continued rains, has materially reduced the danger for next season. Results of the recent survey of grasshopper eggs by the Bureau of Entomology and Plant Quarantine indicates a reduction of egg counts ranging from one-third to two-thirds in Wisconsin, Iowa, Missouri, Kansas and Oklahoma. On the basis of the egg count, the bureau now estimates a need for 206,242 tons of grasshopper bait for control of hoppers in 1939. This allows 65,673 tons of bait for poisoning migratory species on idle lands which has not been done in the past... State and federal organizations for grasshopper control were active in 24 states this year. For the states from the Mississippi River to the Pacific Coast, state officials estimated total savings of crops worth \$176,000,000 resulting from the campaign. More than 400,000 farmers used approximately 155,000 tons of mixed bait on about 30,000,000 acres and this furnished protection for more than 55,000,000 acres of crops. Control was most effective in regions where the different kinds of hoppers which destroy crops did not show marked tendencies to migrate long distances by flight. In areas where the migratory species developed, there was a high degree of control which prevented much flight and resulted in substantial savings of crops..."

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Section 1

December 20, 1938

WALLACE ON FARM PROGRAM

Henry A. Wallace, Secretary of Agriculture, yesterday expressed the belief that the Administration's farm program will be "strengthened and improved," says a Baltimore Sun report, but added that he believes its principles are sound and will be continued. "If we are to judge the sentiment for the AAA programs by the recent referenda," he said, "there is no doubt that the principles of these programs have the support of a preponderant majority of the farmers." Lumping all the voters together, the Secretary of Agriculture pointed out that 1,587,353 farmers voted, and that 1,216,147 or about 76 percent voted for quotas. A two-thirds majority is required to put a quota into effect. The cotton quota was approved by approximately eighty-five percent of the producers, but those proposed for rice and tobacco fell short of the necessary figures.

FSA PLAN CHECKED

Secretary Wallace has been informed by Richard N. Elliott, acting Controller General, that loans of about \$3,000,000 made for the construction, equipment and operation of silk hosiery mills on five homestead projects of the Farm Security Administration were unauthorized by law, and, in addition, were "in competition with private industry," the New York Times reports. An FSA spokesman said that attorneys of the Department of Agriculture were convinced the loans to cooperatives were not in violation of the law and that application had been made to Mr. Elliott for a formal opinion to that effect. The loans in question were \$750,000 each to the Cumberland Cooperative Company, Cumberland Homesteads, Tenn.; Red House Association, Red House, W. Va., and Penderlea Farms Homestead Association, Penderlea, Ala.; \$490,000 to Skyline Industrial Company, Skyline, Ala., and \$410,000 to Homestead Industrial Company, Bankhead Farms, Ala.

CHINA CREDIT

The United States has decided to continue its extension of credit to China against gold held in this country, Henry Morgenthau, Jr., Secretary of the Treasury, announced at his press conference. The effect of the announcement is to give the Chinese Government access to dollar credits at a strategic moment in its defense against Japanese invasion. In view of repeated Japanese criticism of American financial aid to China, the latest coming today from Foreign Minister Hachiro Arita in Tokyo, the decision of the United States also amounts to a serious rebuff to the Japanese. The announcement by Secretary Morgenthau follows closely upon the advance of a \$25,000,000 commercial loan last week by the Export-Import Bank to China, which loan was the principal object of Foreign Minister Arita's criticism today. (New York Times.)

Grain Grading "The Grain Grading Primer is a new publication by the
Publication U. S. Department of Agriculture," says the Northwestern
 Miller (December 14). "It is designed primarily to pro-
vide information on grain inspection and grading for farmers, dealers and
students of grain production and marketing...Federal standards under the
grain standards act (of 1916) are now in effect for wheat, corn, barley,
oats, feed oats, mixed feed oats, rye, grain sorghums, flaxseed and mixed
grains...The primer, Miscellaneous Publication No. 325, was prepared by
the Extension Service and the Bureau of Agricultural Economics. Copies
may be obtained for 10 cents from the Superintendent of Documents, Govern-
ment Printing Office, Washington."

Science Workers Science (December 16) reports: "Members of the staff
Association of Harvard University, Massachusetts Institute of Technol-
 ogy and other institutions in Boston and Cambridge, have
formed an Association of Scientific Workers, having as its aims: (1) to
bring scientific workers together to promote an understanding of the rela-
tionship between science and social problems; (2) to organize and express
their opinions on the steps to be taken towards the solution of these prob-
lems; (3) to promote all possible action on the conclusions reached...The
association will conduct its first open meeting on December 19 at Harvard
University...It is hoped soon to affiliate with other similar groups in
Philadelphia and elsewhere. Communications should be addressed to the Sec-
retary of the Association of Scientific Workers, Harvard Biological Labo-
ratories, Cambridge, Mass."

Freeways "Passage of laws giving highway departments authority
for Roads to build roads of the limited access type in suitable loca-
 tions was urged in a resolution adopted by the American
Association of State Highway Officials at its recent convention," says
Engineering News-Record (December 15). "Highway departments should be
able to acquire sufficient width of right-of-way to protect the public
investment in the highway and should have authority to enforce regula-
tions controlling the use of private property abutting on state highways,
the resolution said...It was recommended that legislation be adopted per-
mitting amortization of land acquisition costs over a long period of years
through rental or resale of land condemned adjacent to the right-of-way..."

Rural Fire Harold P. Bowhay, in Fire Engineering (December) de-
Protection scribes the so-called California plan for rural fire pro-
 tection, particularly with reference to Kern County. The
author says in part: "The Rural Fire Protection Committee...is composed
of representatives from the State Division of Forestry, U.S. Forest Service,
Extension Service, Division of Agricultural Engineering of the State Uni-
versity, Board of Fire Underwriters of the Pacific and State Division of
Highways...The State Division of Forestry, with 33 out of 58 counties co-
operating, has developed into a highly trained organization, which today
operates 280 vehicles, of which 159 are modern fire fighting trucks...Kern

Rural Fire Protection, Cont.

County has an acre of 8,003 square miles, which is larger than Massachusetts...Two airplanes are maintained for observation and scouting of fires as developed by the U.S. Forest Service...The Fire Underwriters have voluntarily reduced insurance premiums in Kern and other counties providing protection...The taxpayers have been demanding more fire protection, which is economically feasible as the reduction of fire insurance premiums equals or exceeds the cost of fire protection."

Consumer Demand Continued improvement in consumer demand during the next few months, even if there is no additional increase in industrial activity, was forecast last week by the Bureau of Agricultural Economics, as it reported an improvement in a demand for farm products, based on the rise in industrial activity and in consumer purchasing power in recent months. "Operations in the automobile and steel industry show evidence of approaching the limit of expansion," the bureau said, however, in discussing the possibility of a slowing down of industrial activity in the coming months. "Little or no further increase in these important lines can be looked for during the next several months." The bureau said the sharp rise in industrial production in the last half of this year was a result of increases in the output of automobiles, textiles and other consumer goods. The report also cited a marked pick up in building activity but said "the general improvement in the business situation has not yet been reflected in any large expansion of other capital goods." (Wall Street Journal.)

Highway Zoning Albert S. Bard, in the National Municipal Review (December) reports: "County Judge Maurice T. Dooling, Jr., supports a Monterey (Calif.) highway zoning ordinance which places the community interest in the appearance of the highway and its abutting strips paramount over the desire or whim of the abutting private owner. The case involved protection to the San Simeon Highway along the California Coast. In an opinion Judge Dooling deals with the question of 'aesthetics and the constitution'; the commercial asset to a community and to private owners of sightliness in their highways, buildings and structures; the value of tourist trade; the pioneering in community planning embodied in the Monterey ordinance; the wholesome evolution in the judicial attitude toward community planning (including civic design) and toward the police power..."

Vapor Sprays for Plants Agricultural Engineering (December) contains a paper by R. M. Merrill, of the Bureau of Agricultural Engineering, on "The Use of Vapor Spray in Plant Disease Control." "Experimental work with vapor spraying," he says in the last paragraph, "indicates that many materials can be effectively applied in this way, and it seems that the question of its adoption by growers is entirely dependent on whether it is possible to obtain a unit of sufficient capacity, economy of operation, and freedom of mechanical trouble to compete with the conventional hydraulic sprayer."

Roundworms
in Cattle

G. Dikmans, of the Bureau of Animal Industry, is author of "Parasitic Enteritis in Calves" in Veterinary Medicine (January). An abstract of the article says:

"Although research into toundworm infestations in cattle has been extremely limited, it is known that at least two genera of nematodes are widespread among the cattle of the United States and that they have caused severe death losses in calves. Since internal parasitism in cattle other than distomiasis has received but little attention and, further, because the Cooperia and Ostertagi spp. are inconspicuous in the mass of ingesta in the stomach and intestines, the evidence at hand is such as to justify the suspicion that these nematodes may be responsible for far greater loss to the cattle industry than has hitherto been suspected. When greater care obtains in diagnosis it may be found that these nematodes are causing many obscure types of diarrhea and enteritis in cattle and are responsible for much unthriftiness in young and mature animals."

Farm Implement
Prices Down

A report from the Chicago office of the Wall Street Journal says price reductions on practically the complete line of light implements are being made in new dealer contracts for 1939 currently being closed by the leading manufacturers of farm machinery. Except for combines this about completes the downward readjustment of farm tool prices which had been expected for 1939. Prices on tractors and corn machinery were reduced early in October by a number of the larger companies. Expectations are that combine prices will be cut slightly, probably in the first quarter of the new year. Current reductions on light machinery, which are the first in several years, amount to as much as 10 percent on a few items but the average cut is estimated to be slightly under 4 percent.

USDA Regional
Research

Chemical & Metallurgical Engineering (December) in an editorial on the Department's regional research laboratories, says in part: "This is one of the most important undertakings which has ever been made in the United States to do fundamental work for the furtherance of the chemical process industries.....The spirit which governs the planning for this work is constructive. The process industries have everything to gain from support of the new research. There is not the slightest evidence that the projects will put the government into business.....All the government group wants to do is to assist in research on the great mass of agricultural raw materials so that new industries may develop that will be new outlets for agricultural commodities, new agencies of employment, new contributors to a higher standard of living for the country as a whole. Let us hope that this spirit of the Department may attract able research workers. If it does, the whole profession will benefit, the cause of research generally will be advanced, and a great constructive service will be rendered to agriculture."

Refrigeration

Beginning January 15, Railway Express Agency will offer to shippers of quick frozen foods and other perishable products a new refrigerated container service. About the size of a trunk, the containers depend on dry ice to maintain subzero temperatures. (Business Week, December 17.)

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Section 1

December 21, 1938

GRAIN, COTTON FUTURE TRADING The Commodity Exchange Administration reported yesterday that trading in grain futures on the nation's contract markets totaled \$13,000,000,000 during the year ended June 30. This represented a decline of 48 percent from the estimated \$25,000,000,000 for the previous 12-month period. The trading represented a volume of 12,386,000,000 bushels of wheat, corn, oats, rye, barley and flaxseed, the CEA said. The volume in the previous 12-month period was 16,577,000 bushels. Trading in cotton futures, published for the first time, was reported at 47,729,000 bales. The CEA said the marked decline in dollar value of grain trading was caused by sharp drops in prices and a smaller volume of transactions. In its annual report to Secretary Wallace, the CEA said it had made "substantial progress" toward insuring "fair practice and honest dealing" on the commodity exchanges. (A.P.)

VERMONT FLOOD CONTROL PACT The State of Vermont has made an agreement with the Federal Government by which the state will acquire lands, easements and rights-of-way for a dam and reservoir at Union Village (Thetford) as part of the Connecticut River flood control project, and will be reimbursed for expenditures "deemed reasonable" by the Secretary of War and chief of engineers. The action ends the controversy which rose when the Governor challenged the right of the government to take lands in Vermont without the consent of the state. The agreement states it is "without prejudice to the rights of the state" with respect to other proceedings. (New York Times.)

BUFFALO FOOD STRIKE A strike of food handlers sharply curtailed food distribution yesterday in Buffalo, a city of about 600,000 population. Pickets virtually closed the Niagara Frontier Food Terminal, scene of a similar strike in 1937. A large proportion of the food for New York's second largest city comes by train and truck to this terminal for distribution. Activities were also curtailed at the other large produce terminal, but union leaders announced late yesterday agreements with five of its commission merchants. (A.P.)

R.R. COMMITTEE CONFERENCES Persons close to the President's joint committee of railroad management and labor said yesterday it might recommend reorganization of the Interstate Commerce Commission and revision of rate-making procedures. The committee, composed of three representatives of rail labor and three spokesmen for management, resumed conferences yesterday to get their report ready for submission to the President, probably Friday. (A.P.)

"Science
Observer"

"The first number of Science Observer, a new publication primarily for school children, has been issued," says Science (December 16). "The publication is part of a program of junior activities of the American Institute of the City of New York. It is issued as the official newspaper of the Science and Engineering Clubs sponsored by the Institute. It is an 8-page newspaper, tabloid size, containing four pages of news of science and club work and four pages of photographs."

Safety in

Sidney M. Shapiro, of the Long Island State Park Commission, in Engineering News-Record (December 15) describes a new 10-mile parkway on Long Island "that embodies every safety device that experience has shown to be effective." He says in part: "The right-of-way averages 350 feet with additional width at the important crossroads. No means of access for abutting owners along the parkway is provided and public access and egress points are limited to intervals of about two miles, with the idea of reducing such points (where experience has shown many traffic accidents to occur) to a minimum. The roadway consists of two 25-foot reinforced concrete pavements divided by a 9-foot landscaped mall. The two outside lanes are 12 feet wide and the two inside or passing lanes 13 feet wide. The concrete mixture was colored with carbon black to reduce glare during daytime driving. Sloping curbs three inches high are of white cement to contrast with the black concrete of the main lanes. At each exit and entrance, accelerating and decelerating lanes 11 feet wide are provided outside of the 25-foot width of main parkway. These lanes are paved with uncolored concrete...Another safety improvement is an asphalt macadam sidewalk on one side of the parkway for its entire length...Benches have been installed at regular intervals. All the intersecting crossings are separated in grade...Automatic vehicle counters consisting of treadle units set in each lane of pavement have been placed at the north and south ends of the project...Billboards, advertising signs or any other objects tending to distract the driver or detract from the landscape are prohibited and the right-of-way is landscaped with topsoil, grass and planting."

Visitors
to Parks

A new high record of 16,233,688 persons visited the national parks of the United States during the fiscal year ended last June 30, according to the annual report of the Department of the Interior, says an item in the New York Times. The report, prepared by Secretary Ickes, while citing many evidences of encouraging progress in a five-year campaign to bring about greater conservation of national resources, carried a recommendation that legislation be enacted to permit the department to determine the nation's requirements of the principal minerals so as to check overproduction and consequent waste.

Courses Discussing "Instruction in Rural Electrification" in
in Rural Agricultural Engineering (December) Truman E. Hienton,
Electrification Purdue University, asks "whether a rural electrification
 course or courses may not be as important as one or more
tractor courses to the agricultural engineers and agricultural students...
Nearly every college agricultural engineering department is now teaching
one or more tractor courses. The need for rural electrification courses
will depend upon the location of the university with respect to rural elec-
trification development. The percentage of agricultural engineering stu-
dents in university classes, living on farms where electric service is
available, will be surprising to many instructors when they seek that in-
formation. More than 50 percent of the winter course (eight weeks) stu-
dents in agriculture at Purdue University this past winter lived on farms
where electricity was used. Checks on four-year students showed an even
higher percentage living on electrified farms. This situation existed,
although only 26.7 percent of Indiana farms receive electric service from
rural lines..."

Inter-American Nearly half of the projected inter-American highway
Highway from Laredo, Texas, to Panama is now improved with gravel
 or higher type surface, according to the 1938 annual re-
port of the Bureau of Public Roads of the Department of Agriculture, says
an article in the Washington Star. When completed, this highway will ex-
tend 3,305 miles through Mexico, Guatemala, El Salvador, Honduras, Nica-
ragua, Costa Rica and Panama. The present improvement is reported as fol-
lows: 1,083 miles of paved road, 447 miles of gravel road, 43 miles of
graded earth road and 1,732 miles of ungraded road or trail. Over half
of the entire route lies within Mexico, where 805 miles have been improved
and 1,015 miles remain unimproved. The route within the other countries
is reported as follows: El Salvador, 103 miles improved, 88 miles unim-
proved; Honduras, 23 miles improved, 67 miles unimproved; Nicaragua, 35
miles improved, 210 miles unimproved; Costa Rica, 48 miles improved, 308
miles unimproved; and Panama, 323 miles improved, 44 miles unimproved.

Free Port The nation's first free port, in New York harbor,
Active reported steadily increasing business at the end of the
 first seven months under private administration and offi-
cials of the operating company expressed the opinion that the project
would develop throughout 1939 a commercial turnover unforeseen a year
ago. On lease from the city, the free sector was taken over by the New
York Foreign Trade Zone Operators, Inc., on May 16 after a brief and un-
successful period of administration by the city. During the summer and
fall thousands of tons of merchandise have entered the city through the
zone, some of it destined after processing to American markets and the
rest consigned to other ports throughout the world. The outlook at present,
in view of brighter prospects for the year of the World's Fair, is that the
zone eventually will receive business in excess of 1,000,000 tons annually.
(New York Times.)

Beef Statistics A note in Veterinary Medicine (January) says: "In 1890, the population of the United States was 62,947,714. In 1938 it was approximately 130,000,000. The number of beef cattle in the United States in 1890 was approximately 45 million. In 1938 it was 43 million. In other words, the population has more than doubled in the last 48 years and the number of beef cattle has decreased 7 percent. There has been a marked improvement in the quality of beef cattle during the last 50 years and at the same time a large decrease in the per capita consumption of beef."

The issue also includes abstracts of papers read before the U.S. Livestock Sanitary Association at Chicago early in December. Several authors are of the Bureau of Animal Industry staff, in Washington and in the field.

Hop Production Problems G. R. Hoerner, of the Bureau of Plant Industry, is author of "Hop Production Problems on the Pacific Coast" in American Brewer (December). He says in part: "Hop production is a highly specialized industry. Production problems are many and varied. When downy mildew, the most serious disease to which hops are subject, first appeared in Oregon yards in 1930, a cooperative study by the U.S. Department of Agriculture and the Oregon Experiment Station was inaugurated to establish the geographical limits of the disease; to discover any differences in susceptibility among Clusters, Fuggles, or Red Vines, varieties most commonly found in commercial plantings, and to determine the most effective methods for its control. It is now known that the disease is present in all hop growing areas and that it is, or may be, seasonally a serious menace to profitable production in all but one area. While there are differences among hop varieties in their resistance to the disease, no commercial varieties have yet been discovered which are entirely immune to it...In addition to the cooperative work with the United States Department of Agriculture, the Oregon Experiment Station in 1934 started three projects on its own; (1) artificial drying of hops; (2) employment and application of chemical methods in hop evaluation for brewing purposes; and (3) hop cost studies."

Farmers' Cooperatives American farmers' marketing and purchasing cooperatives registered a 14 percent increase in business volume in the last year, according to 1937-38 estimates published by the Farm Credit Administration. Farmers did a marketing business of \$1,960,000,000 through their cooperative associations, a rise of 10 percent over 1936-37, and increased by 23 percent the volume of purchasing done cooperatively, buying supplies worth \$440,000,000. Supplementing the nation-wide survey made by the Farm Credit Administration, covering the 1936-37 marketing year, the new 1937-38 estimates indicate that the intervening year has seen a growth in the number of active cooperative associations of 148, giving the nation 10,900 marketing and purchasing associations, doing a total business of \$2,400,000,000. Membership affiliations have increased 4 percent to a gross total of 3,400,000. (Many farmers are members of several organizations.) (Rural America, December.)

DAILY DIGEST

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Vol. LXXI, No. 57

Section 1

December 22, 1938

WINTER WHEAT

FORECAST,

MARKET

The Federal Crop Reporting Board yesterday forecast next year's winter wheat crop at 485,000,000 bushels--the smallest since 1935 and 201,000,000 bushels less than was harvested this year. The board based its prediction on two factors, an 18 percent reduction in acreage planted and poorer crop prospects in the Great Plains area, where drought conditions have prevailed since sowing of the crop last fall. The area planted to wheat was estimated at 46,173,000 acres, compared with 56,355,000 acres for the annual average during the 1926-35 period. (Associated Press.)

An A.P. report from Chicago says measures tending to facilitate United States breadstuff exports helped to make Chicago wheat prices average a bit higher yesterday. It was announced the Federal Surplus Commodities Corporation would provide 500,000 bushels of wheat monthly for civilian relief in Spain throughout the next six months. Another stimulating factor was word that the subsidy on export flour from the Pacific Coast to the Philippines had been raised 10 cents a bushel.

SNOW AIDS

DUST BOWL

Long overdue snowfalls which ranged up to seven inches brightened the winter crop outlook in the one-time dust country and adjoining areas, according to a report yesterday from Lamar, Colorado, by the Associated Press. The storms covered much of Colorado, Kansas and Oklahoma and parts of Texas, New Mexico and Arizona. "In some places, this snow is all that saved the fall wheat from dying," said Jack French, Prowers County (Colo.) county agent. K. D. Blood, of the Bureau of Agricultural Economics (Oklahoma City) said heavy enough precipitation would aid in preventing wind erosion.

EXPRESS

HIGHWAY

The Maryland State Roads Commission bought for \$80,000 the roadbed of the defunct Washington, Baltimore and Annapolis Electric Railway and announced yesterday this would be the basis for what Gov. Harry W. Nice has predicted will be "the most modern example of high-speed road construction in the entire country." There would be no cross roads, cross traffic being cared for by underpasses or overpasses, and there would be no traffic lights to slow up the flow of cars. The highway would be lighted at night and would be guarded by every safety device known to engineering for the rapid and safe handling of traffic. (Washington Post.)

Cottonseed The Chicago Board of Trade has adopted rule changes to
Oil Trading permit opening of cash and future markets for cottonseed
 oil. The market will not be opened for some time, it was
said. President Kenneth S. Templeton described the action as "another
forward step toward broadening the activities of the Chicago Board of Trade
in a field to which its facilities are exceptionally well suited. Every
care will be taken to launch the Chicago cottonseed oil market so it may
be developed along sound, conservative lines." (Chicago Jrn. Commerce, Dec.15.)

FSA Clients Texas tenants, grateful to the Farm Security Adminis-
Good Risks tration for loans that enabled them to own their own farms,
 in many instances are repaying their obligations before time
is due, C. M. Evans, FSA regional director, has announced, according to a
report in the Dallas Morning News (December 12). "Some of the new owners
want to pay as much as three years' installments in advance," Mr. Evans
added, "a unique record. All the 160 tenants who received loans last spring
will be in a position to meet their first year's payment." The FSA is now
making 396 new loans to tenants. These are picked clients out of some
7,000 applications. When the tenants are settled they will begin immedi-
ately improving their homes and barns and will pursue a balanced type of
farming. The program is very important to Texas, which has 286,000 ten-
ants out of a total of some 500,000 farmers. Although funds allotted by
Congress will permit only 1 percent of the tenants to become farm owners,
the FSA has a lease program which provides for more satisfactory relations
between tenants and landlords, Mr. Evans^{said}. "Approximately 40 percent of
the Texas tenants move every year and the average cost of moving is more
than \$50 per family, just the beginning of the ultimate cost," he said.

Federal Aid "Great importance attaches to the recommendations of
for State the legislative interim committee on forestry (in Minnesota)
Forests proposing that the state buy tree seedlings from private
 nurserymen and distribute them to farmers at cost," says an
editorial in the St. Paul Pioneer Press (December 13). "Woodlot plant-
ings in Minnesota have lagged behind those in other states while conserva-
tionists and private nurserymen have argued over plans to establish a
state owned nursery and grow and distribute seedlings, with the aid of
federal subsidies under the Clarke-McNary law. The argument has ended in
what appears to be a workable compromise. That it succeed in getting trees
planted on farm woodlots is all that anyone can ask. Minnesota has been
one of only six states to fail to cooperate in the Clarke-McNary plan for
distributing forest tree seeds and plants to farmers at low cost. It is
to be hoped the legislature will act speedily."

Light for A new method of lighting will be used in Washington
Xmas Tree in decoration of the National Community Christmas Tree,
 which President Roosevelt will dedicate at 4:30 p.m. Christ-
mas Eve. To bring out the daylight color of the tree, a live spruce in
Lafayette Park, ultraviolet light will be used instead of only ordinary
flood lights, which make the tree a black mass. (Washington Post.)

**Better Cotton
in Texas**

"A marked improvement in the quality of Texas cotton has been reported by the Bureau of Agricultural Economics," says an editorial in the Houston Chronicle (December 12). "Less than 5 percent of the almost 2,000,000 bales of cotton ginned in the state before October 1 is untenderable, as compared with 22 percent for the same period of last year. Nearly 25 percent of it was an inch or longer in staple, as compared with only 8 percent last season. The government estimates indicate that 38 percent was strict middling white or better, as compared with 32 percent last year and that more than 71 percent of the cotton graded middling white or better. E. A. Miller, Texas A. and M. College Extension Service agronomist, pointed out that not all of the credit for the improvement can be given to the 213 one-variety cotton associations, through which 632,897 acres of about 6 percent of this year's crop in Texas were planted to quality cotton. County agricultural agents have told Mr. Miller that many farmers, as individuals, planted better cotton than formerly as a result of the extensive cotton improvement campaign. Mr. Miller rightly says that these farmers, even if they did not always get paid on a quality basis as did the association members, at least made a substantial contribution to the improvement of the state's cotton."

**Rural Youth
Problems**

The farm frontier, like other frontiers, has passed, and this generation of American rural youth faces a situation no other has encountered, Dr. Carl C. Taylor, U.S. Department of Agriculture, said at the American Farm Bureau Federation's rural youth conference last week, says a report in the New Orleans Times Picayune. If predepression cityward trends were quickly to reestablish themselves, he added, more than 4,000,000 farm-born young people would find themselves in towns and cities, entering occupations other than farming, within seven years. Those of older age groups should attempt to see that their world is so organized as to lessen, if not eliminate, the difficulties which youth have in finding orientation in it, Dr. Taylor asserted. "It is no criticism of youth and the desires they express," he concluded, "to state that adults must be held chiefly responsible for creating the opportunities by which youth can attain what they desire."

**Botanic
Specimens**

The Carnegie Institution of Washington has presented two valuable exhibition plants to the Botanic Garden (Washington). Both specimens—one of the barrel cactus and the other of the honey mangrove or salt bush—are on display in the main conservatory. The barrel cactus, 3 feet 6 inches in height and more than 20 inches in diameter, weighing over 200 pounds, is said by William A. Frederick, in charge of the Botanic Garden, to be the best specimen ever exhibited. The botanical name is *Ferocactus wislizeni* and it is native to the Tucson, Arizona, area. The honey mangrove is native to the Florida Everglades and has several important industrial uses. The botanical name is *Avicennia nitida* of the Verbenaceae family. Its natural habitat is the southeastern part of the United States. (Washington Star.)

Starch Content of Potatoes

"If the activities in manufacturing by-products from farm crops are increased in the United States, there may be demands in the not distant future for potato varieties with a much higher starch content than the present commercial sorts for use in the production of starch, flour, alcohol and other commodities," says F. J. Stevenson, Bureau of Plant Industry, in American Potato Journal (December). "The potato breeder must either find already existing varieties to meet these demands or produce them by breeding methods. German varieties such as Parnassia, have been reported to produce from 18 to 20 percent of starch under European conditions, percentages higher than for most of the potatoes grown in this country. Parnassia has been imported for experimental purposes, but results to date show that grown on Aroostock Farm, Presque Isle, Maine, it is inferior to Green Mountain in shape of tuber and yield and is probably no better in the percentage of starch produced...The small number of samples analyzed give only a slight indication of the relative potentials for starch production of these two varieties but it is interesting to note that greater differences were found between tubers of each variety than between the two varieties and that Parnassia, a so-called high starch producer in Europe, is probably not superior to Green Mountain in starch production when grown in Maine. This is another illustration of the behavior of a genetic character in the development of which environmental conditions must be given as much consideration as the genetic factors. As a variety, Parnassia is quite inferior to Green Mountain and only future research will determine whether or not it is useful as a parent in the production of new varieties that will produce higher percentages of starch in the potato growing regions of the United States than the present commercial sorts."

Erosion Control in Texas

"As Texas A. and M. College Extension Service shows in a recent bulletin, 'Texas, a Terracing Pioneer', that concern dates back to 1911, when Dr. Seaman A. Knapp, the originator of agricultural extension work, initiated the terracing demonstrations which have been kept up ever since," says the San Antonio Express (December 13). "It is highly significant that the state which possesses the largest area of farm land yet untouched by the plow should have taken the lead in this soil-saving movement. The program has advanced steadily year by year until Texas now has approximately 10 million acres of farm land protected by terraces. The job is only about one-fifth accomplished, however...For that reason Texas lately welcomed the Soil Conservation Service district offices which were opened in six 'key' cities, including San Antonio. As a result the conservation campaign may be expected to progress even more rapidly in 1939 and thereafter. The CCC is also doing effective demonstration work. Besides, the North Texas State Teachers College, through its short course last summer, instructed many leaders in conservation work."

DAILY DIGEST

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Section 1

December 23, 1938

FARMERS' INCOME

The Department of Agriculture estimated yesterday that farmers received \$6,463,000,000 from sale of farm products and government benefit payments during the first eleven months of the year. This was 13 percent less than the \$7,440,000,000 reported for the corresponding period last year. The cash farm income in November was estimated at \$708,000,000, compared with \$716,000,000 received in November last year. Benefit payments for the 11-month period totaled \$443,000,000, or 24 percent more than the \$358,000,000 reported for the same months last year. (Associated Press.)

ALASKAN HIGHWAY

An Ottawa report to the New York Times says Prime Minister Mackenzie King announced last night the naming of a commission, complementary to that named by President Roosevelt, to report on the facts, but not to recommend action, on the proposed American highway through British Columbia to Alaska. The commission is headed by Charles Stewart of Ottawa, chairman of the Canadian section of the International Joint Waterways Commission. The United States has made representations regarding the highway, Premier Pattullo of British Columbia has recommended it and Sir Evelyn Wrench, chairman of the Overseas League, has advocated British participation in it to mark Anglo-American goodwill and 125 years of border peace.

CHINESE PURCHASE

Orders for 1,000 American motor trucks for commercial highway transport in China, believed to be the first major Chinese purchases under the \$25,000,000 credit advanced to that country by the United States Export-Import Bank, were announced yesterday. (Associated Press.)

CCC TREE PLANTING

The Department of Agriculture recommended last night that the Civilian Conservation Corps in future years plant trees on 26,000,000 acres of waste land. The CCC operates under supervision of the Agriculture, Labor, Interior and War Departments. The Department of Agriculture praised the CCC's efforts in wildlife restoration, soil conservation and flood control, and recommended that the agency's activities in these fields be expanded. (Washington Post.)

Rural Housing
Problems

L. F. Easterbrook, in the New Statesman and Nation (November 19, London) is author of one of a series of articles--"Back to the Land?" In this one, "The Workers," he discusses rural housing, asking: "How can we set about the problem of attracting the workers, both employer and employee, back to the land?... The significance of rural housing cannot be overemphasized... Since Mr. Walter Elliot (who has always had at least one foot in the soil) went to the Ministry of Health, there has been a great speed-up in reconditioning cottages under the housing (rural workers) act, and 20,000 cottages will soon have been dealt with by this means. Inseparable from decent housing are proper sanitation and water supplies and rural electrification... The Cambridgeshire Village Colleges, which are places to recreate the minds and bodies of everyone within their orbit, point clearly up the right path. Here knowledge is taught and the humanities; here there are sports grounds and swimming pools, laboratories, libraries, village halls and meeting places to which every village man, woman and child has free access; and here also is the source of village life..."

Mobile Seed
Cleaner

"Clean wheat seed went into the ground this fall in Hancock County, Ohio," says Howard McCoy, in short items under the heading, "Rolling Along the Road," in Country Gentleman (January). "Farmers who market their wheat through the Jenera Cooperative Association elevator in that district are enthusiastic about the mobile seed cleaner that separated out the weed seeds and chemically treated the wheat for smut in one operation. E. H. Haldman, manager, told me how hard the co-op's \$750 machine was worked after delivery this past Labor Day... Eight thousand bushels of wheat were shipped out smutty in 1938. F. G. Hall, alert county agent, told Haldman of a mobile cleaner that also treated for smut which he had seen at the Wooster, Ohio, Experiment Station. The cleaner, which is mounted on a truck, started on an 18-hour-a-day schedule, eventually worked 24 hours at a time with 2 crews; by the time planting was over it had treated 13,000 bushels, used 375 pounds of new improved ceresan for smut control. It is already booked to treat hundreds of bushels of oats in the spring. Farmers--250 members of the co-op, which does three-quarter million dollars' business a year--were most surprised at the amount of cheat and other weed seeds the cleaner took out..."

Carload Sugar
Rates Lowered

All-rail rates on sugar in carload lots of a 40,000-pound minimum from New Orleans and points adjacent, and from Port Wentworth (Ga.) to points in Indiana, Ohio, Michigan, Kentucky, West Virginia and Virginia were found to be "unreasonable and unduly prejudicial" by the Interstate Commerce Commission this week. The commission ordered that they be lowered to 22 percent of the first class rates in effect on July 6, 1938, for the 40,000 pounds minimum. At the same time the commission found that all-rail rates on sugar in carload lots of a 40,000-pound minimum from New York City to points in Virginia, Kentucky, North and South Carolina and Tennessee were unreasonable and ordered reasonable rates. (New York Journal of Commerce, Dec. 19.)

Managed Forests "Today so much of our food and clothing comes from products of field and pasture that we often overlook the importance of forest resources," says an editorial in the Dallas Morning News (December 11). "American forests have been mowed down, burned and exploited with little thought for the future. Erosion and floods have added to the damage. A real timber famine was threatened a few years ago until new deal agencies instituted a drastic program of forest conservation...On much of this (privately owned land) wasteful cutting is still practiced and replanting is neglected. In his new book, The Nation's Forests, William A. Du Puy states that in the United States 'there is lying unproductive many an area of cutover land as big as the state of Delaware.' These waste regions, with their ghost towns, could be made productive again, if trees were grown as crops. Some Oregon communities have begun foresting on a crop basis, and there is hope that the new pulp paper industry in the South will give rise to more systematic forest production in this section of vast forest lands. After warnings from the Forest Service that destructive methods of cutting would lead to early depletion, southern pulp interests have adopted a policy of self-regulation that looks to maintaining forests instead of destroying them. This, of course, is the only policy that can insure permanent success to the mills now being built in forested parts of the South."

Growing Grass for Seed Kansas Farmer (December 17) reports increased interest in Kansas in growing grass for seed. "This interest," it says, "was climaxed at the fall agronomy day when farmers looked at the grass seedings at the Soil Conservation Service and Department of Agriculture nurseries. They saw seedings of Big and Little Bluestem, Switch and Indian grass, seeded last spring and the year before. This grass was carefully handled and many plants had reached the height of one's head. The seed was covered about 1/2 inch deep and then 3 inches of pulverized soil placed on top. This was raked off after the seed had germinated. Under this system excellent growth was obtained and where small plots are desired, the same plan might be followed...In calling on farmers over Kansas this year, it is evident that even pastures which seemed hopeless had come back to a surprising state of productivity, particularly if they had been protected from grazing until late summer...Harvesting grass seed, principally Bluestem, has been done a number of ways, but the small combine is recommended by Donald R. Cornelius, of the Soil Conservation Service, from observations of farm experience. Strippers have been successful for the government work. A number of men have bound and threshed their seed with ordinary grain equipment...Seed houses of the state have been swamped with inquiries for price quotations on Bluestem this year for the first time. There is no established price yet, as the whole idea is new, but we see in this development a new angle to farming..."

Sherman Honored Wells A. Sherman, who retired from the government service on July 31, was made honorary member for life of the National Association of Marketing Officials. W. W. Oley, of the association, writes: "This is the first time that the association has...conferred an honorary membership on any individual..." (B.A.E. News, Dec. 15.)

General Crop Report The Agriculture Department, in its final crop report for the year, said that on a per capita basis the level of farm production during 1938 was not high, according to an Associated Press report. "With crop production this year placed at 104.8 percent of the 1923-32 or predrought average, and population at 109.6 percent of the average for that period, crop production per capita would appear to be at least 4 percent lower than in the predrought period," the crop reporting board said. An "appearance of abundance" of some crops was attributed to a lower level of domestic and foreign demand that was considered normal a few years ago, and to relatively small numbers of livestock on farms to consume feed grains. The board added that even the bumper crops of 1937 were only about 4 percent above the predrought level. Production of food crops was equally as heavy this year as last, the board said, pointing to a final estimate of 930,801,000 bushels of wheat for this year, compared with 875,676,000 bushels last year. The final survey substantiated earlier department indications of higher average acreage yields on a below-average ^{acreage} the board said. Acreage yields were said to have been nearly 11 percent above and the aggregate acreage of crops harvested 3 1/2 percent below the 1923-32 predrought period. The total area of 45 crops harvested during the year was estimated at about 342,000,000 acres as compared with 341,000,000 last year, and 354,000,000 for the decade preceding the drought. The board said 1938 harvest acreages declined in most states but there was an increase of about 9,000,000 in the Great Plains States from Kansas and Nebraska northward, due chiefly to a smaller loss of acreage from drought.

Penn. D.H.I.A. Record "A new Dairy Herd Improvement Association record for Pennsylvania has been completed by A. L. Howell, Susquehanna County," says D. E. LeVan, assistant county agent, in Pennsylvania Farmer (December 17); "with a registered Holstein cow, Korndyke Segis Andrie, 1603621. This cow has a lactation record for 365 days of 31,408 pounds of milk and 1,146.5 pounds of butterfat. She freshened on November 13, 1937, and since the D.H.I.A. year begins in December, her record for the association year is 29,944 pounds of milk and 1,086.5 pounds of butterfat. It is remarkable that this cow should make such a record and still receive no special care other than grain. Korndyke Segis Andrie was milked four times daily during the 365 days she was on test. During this lactation period she was fed at the rate of one pound of grain to four pounds of milk, but at no time was she given more than six pounds of grain at a feeding or 24 pounds in a day."

Grain Testing Robert H. Black, of Minneapolis, has been appointed to direct the grain standards and testing research activities in the Bureau of Agricultural Economics, it is announced by C. W. Kitchen, associate chief of the bureau. He will assume his duties January 16. Black has been in charge of the bureau's district office of federal grain supervision at Minneapolis. He entered the bureau in 1918. (Washington Post.)

DAILY DIGEST

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Section 1

December 27, 1938

COTTON EXPORTS

Foreign trade experts of the Agriculture Department reported that this season's foreign purchases of American cotton were the smallest in 20 years and 41 percent less than a year ago. Not since 1918, when the World War reduced Europe's consumption of cotton, have exports been so low. Since the season began on August 1, foreign sales totaled 1,821,000 bales, compared with 3,077,000 for the corresponding period last season. Unless there is a substantial increase during the next few months, which the trade experts do not expect, exports for the season ending next August may not exceed 4,200,000 bales, compared with normal exports of about 6,750,000 bales. (A.P.)

CEA LIMITS

The Commodity Exchange Administration has issued an order, effective December 31, placing limits on speculative trading of grain in the nation's futures contracts markets. Designed to prevent wide fluctuations in grain prices as the result of speculative operations, the order placed the limit on the net long or short position which any trader may hold on a single market at 2,000,000 bushels in any one future or in all futures combined, of any one grain. The order also set a limit of 3,000,000 bushels on the net position of a trader operating in more than one market, providing no more than 2,000,000 bushels is in any one future. (A.P.)

HIGHWAY CONFERENCE

A plea that the \$1,500,000,000 paid annually in highway taxes in the United States be used exclusively to build roads "suitable for the movement of modern traffic, with safety, economy and facility," has been issued by the National Highway Users Conference. The conference, which said it represented farm industrial and business groups, declared in a statement that 47 states are contemplating surveys for future highway programs. The conference asked exclusion of toll roads and urged that highways be based on long-term traffic needs and include "every practical safety aid." (Washington Post.)

WHEAT CROP FORECAST

The Bureau of Agricultural Economics says the Southern Hemisphere wheat crop, now being harvested, probably would be the largest since the 1928-29 crop year. The bureau said Argentina, Australia and the Union of South Africa were expected to harvest between 472,000,000 and 478,000,000 bushels this season, compared with 383,000,000 last season and 412,000,000 for the 1932-36 average. In the 1928-29 season these countries produced 516,000,000 bushels. (A.P.)

Regional
Research

"The government of the United States is to establish a regional research laboratory at Peoria, Illinois, in the center of the Corn Belt," says an editorial in the Emporia (Kans.) Gazette (December 16). "Into the laboratory (under the Department) will go thousands of problems which affect farmers of the Upper Mississippi Valley...What the United States is doing in a big way in four regions, Kansas should do on her own hook...No money that the Kansas legislature could spend would bring to the taxpayers of the state so many returns, and returns so quickly, as a department of industry similar to the Department of Agriculture, equipped with a research laboratory. From the engineering laboratory of the state university in the last 30 years a score of men have gone out who are now near the top of American industry.....The genius of these men keeps hundreds of thousands of men at work all over the United States..."

Moisture
Supply

Both the federal and the Indiana conservation bulletins report that deeper and deeper drainage in the Corn Belt has reduced the moisture holding capacity of subsoil and made corn growers more dependent on timely rainfall in the growing season, says a report in the Bloomington Pantagraph (December 14). "One of the menaces of our great Corn Belt is the approach to a complete drainage of the rolling tableland by surface and subdrainage, much of which is caused by erosion," according to the federal conservation bulletin. "Streams that formerly flowed continuously now are intermittent. Many wells which once provided abundant fresh water have been lowered or have failed. Crops suffer more during prolonged periods of abnormally low precipitation than when the land was new. Yet climatological data, recorded over a long period of years, indicate little change in the yearly precipitation of the area." Remedies suggested are to control erosion, close up deep gullies, build dams, create small ponds--anything that will prevent the underground water level from going too low. The Indiana conservation bulletin reports many lakes in northern Indiana have disappeared, largely as the result of drainage. The Shiloh-O'Fallon soil conservation district, which has been formed, is the first district of its kind organized under the new Illinois law. Each farmer in the 18,000-acre area will be given an opportunity to enter into a cooperative agreement with the district for erosion control. Contracts will be signed by which farmers agree to follow recommended land-use practices in return for technical assistance to be provided by five Soil Conservation Service members.

Cuban Trade
Agreement

The Pan-American Union said recently that exports to Cuba had increased 114 percent from 1934 to 1937 as a result of the reciprocal trade agreement. The union, in a booklet on Cuba's foreign trade, stated that exports to Cuba in 1934 were \$41,225,012 and \$88,846,617 in 1937. During the same 4-year period, Cuban exports to this country increased 85 percent from \$81,093,876 in 1934 to \$150,157,821 in 1937. (A.P.)

Utah Medical Spokesmen for Utah farm organizations, long seeking
Rural Aid some plan of group medicine to provide better care for
rural families, have advocated that the Utah State Medical
Association expand its insurance program to include preventive services
as well as treatment, says a report in the Salt Lake Tribune (December 14).
Association leaders replied that the plan may be expanded to include ex-
aminations and immunization service if a sound financial basis can be
found. As announced, it provides only for hospitalization and major
"emergency" types of illness. Ward C. Holbrook, president of the Utah
State Farm Bureau, commended the doctors' program as a "constructive
effort to get something done," but said his organization has been in-
terested more in prevention. The farm bureau has already organized
movements on a local basis in two counties to provide group service to
farm families. A cooperative organization was sponsored recently by the
Farm Security Administration in San Juan County to bring a resident phy-
sician into that region. In a letter to Mr. Holbrook, Dr. Claude L.
Shields, president of the state medical association, conceded the present
program may be only a "partial attack upon the problem."

Shelterbelt Shelterbelt plantings in the Great Plains are succeed-
Plantings ing, despite a succession of drought years, Glen R. Durrell,
Oklahoma state forester, reported to the Society of American
Foresters. Surveys of each year's plantings have shown survival rates of
77 percent in 1935, 51 percent in 1936, the worst of the drought years,
and 70 percent in 1937. Figures for 1938 are not yet final, but a sur-
vival of about 70 percent is expected. "In the belts planted in Okla-
homa in 1935, many of the trees of the faster growing species are now 20
to 25 feet tall, with plantations of the succeeding years doing propor-
tionately well," said Mr. Durrell. "Compared with the success obtained
in private plantings in years past, it is readily seen that the secret
of success lies in the fact that the job is being handled by trained
foresters utilizing all the knowledge that has been gained through for-
estry research in the region." (Science News Letter, December 24.)

Frozen Pack The encouraging acceptance by hospitals, railroads,
Cooperatives restaurants, steamship lines and the rapid expansion of
consumption of frozen fruits and vegetables for the Ameri-
can home is causing many farmers' cooperatives to consider entering the
frozen pack field, according to J. A. Forehand, Secretary, Washington
Packers, Inc. In the current issue (December) of News for Farmer Coopera-
tives, a publication of the Farm Credit Administration, Mr. Forehand says
there are now 11 farmers' cooperative organizations and they contribute
12.4 percent of the nation's total output of frozen fruits and vegetables.
In 1937 there were 94 companies in the business, including cooperatives,
reporting an output of 228,417,100 pounds, including fruit juices. "One
of the facts which the fresh frozen food industry must get over to the
consuming public," says Mr. Forehand, "is that although the price of frozen
foods is slightly higher than fresh or canned goods...the consumer obtains

a product which has been frozen shortly after being harvested and has retained all of its goodness and flavor. The housewife frequently eliminates a lot of work when she buys the frozen product. The waste material is removed from the product before it is packed..."

Fall Pig Estimate The Bureau of Agricultural Economics announces that the 1938 fall pig crop has been estimated as 18 percent larger than the crop last fall. Taking into account an announced estimated increase of 13 percent in the spring pig crop, the bureau said the total crop for 1938 would be about 15 percent larger than in 1937. The upswing in hog production which started at the spring of this year will continue into 1939 at an accelerating rate, the bureau said. The number of sows indicated to farrow in the spring of 1939 is 21 percent larger than the number that farrowed in the spring of 1938. Basing its report upon information from about 150,000 farmers, the bureau said the number of pigs saved in the fall of 1938 is estimated at 27,651,000 head, an increase of 4,220,000 head over the 1937 crop. This is the largest fall crop since 1933 and is only about 3 percent smaller than the average fall crop for the 5-year period 1929-33. (Wall Street Journal.)

FSA Community Service Plan "The Community and Cooperative Service Program of the Farm Security Administration has been designed to meet a modern need of the low-income farmer for cooperative effort," says the Utah Farmer (December 10). "The program is intended to help groups of two or more farmers finance the purchase of machinery, livestock and equipment which no individual could afford by himself. Loans for these purposes are made to rural rehabilitation borrowers of the FSA and to other low-income farmers who likewise are unable to obtain credit from regular lending agencies, public or private. Community service loans have enabled groups of farmers to obtain for their mutual use lime grinders, spreaders, hay balers, tractors, community canning services, pure-bred sires for livestock improvement, traveling blacksmith and machinery repairing facilities, hauling and trucking services, dusting and spraying rings, and equipment for plowing, harrowing, harvesting, ditching and cultivating. These many cooperative services are made available not only to the group members who received loans for their purchase or rental but to 'patrons' who contract for the services at specified rates of payment..."

Law of Averages "This fall we noticed that a good many farmers tempted the weather and fate by planting strains and varieties of corn of later maturity than have commonly been planted in their communities," says an editorial in The Farmer (St. Paul, December 17). "They have been tempted to do this in order to get larger ears and larger yields and during the past two years the gamble has paid out in larger yields. However, the years 1937 and 1938 were abnormal from the standpoint of length of growing season and favorable corn weather. Such weather cannot be depended upon year in and year out. If one were to gamble on what 1939 would be like, the safe bet would be that we will have an early frost and a short growing season. It's all a matter of the law of averages."

DAILY DIGEST

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Section 1

December 28, 1938

REPORT AIR Curing of bright tobacco by air conditioning at a considerable saving in time, labor and fuel and with more
CONDITIONING uniformly satisfactory results than by the time-honored,
OF TOBACCO flue-cured method was described at the American Association for the Advancement of Science meeting yesterday, says an Associated Press report. Three Virginia Tech researchers, after two years of experiments at Blacksburg, reported that application of conditioned air improves the curing of tobacco in four ways: time of curing is reduced from 50 to 60 percent; stem greenness is entirely eliminated; uniform high quality tobacco is obtained; labor and fuel requirements are considerably reduced.

GLASS WITHOUT Drs. C. Hawley Cartwright and A. Francis Turner,
REFLECTION Massachusetts Institute of Technology scientists, reported yesterday in a paper at the American Physical Society that they have successfully produced a "varnish" which practically eliminates reflection by glass and results in the transmission of 99.6 percent of the light. The presentation of their paper came one day after Dr. Katharine B. Blodgett had described, in Schenectady, New York, her preparation of a film which has the same practical application as that of Drs. Cartwright and Turner. (Washington Post.)

FEDERAL AID Progress reports on two divergent lines of government
FOR YOUTH concern for the nation's youth accounted yesterday for the subsidized vocational education of some 7,000 young men and self-supporting employment of approximately the same number in private industry in November. First of the reports was made by the Office of Education, Interior Department, to the effect that 7,000 young men are receiving training as aviation mechanics in federally aided vocational schools and classes throughout the country. The report on employment was made by the National Youth Administration. Dr. Mary H.S. Hayes, director of the Junior Placement Service, announced that the 7,000 placements of last November bring the total since March 1936 to 148,326. (Washington Star.)

FOREIGN TRADE The Commerce Department reported yesterday declines in exports and imports for November. Exports, including re-exports, dropped to \$252,231,000 in November, from \$277,919,000 in October. They were \$14,697,000 in November 1937. Imports totaled \$176,181,000 in November, compared with \$177,979,000 in October and \$223,090,000 in November 1937. (Press.)

Night The Agriculture Department suggests that the cause
Blindness for many automobile accidents may be found in unbalanced
 diets of drivers. It has found that persons living on a
diet deficient in Vitamin A are subject to night blindness--the inability
to see in dim light--and to a narrowed field of vision. The experiments,
conducted over a six-month period, used five staff members of the Bureau
of Home Economics as subjects. Diets supplied them were kept as low as
possible in Vitamin A, common sources of which are yellow and leafy green
vegetables, egg yolks, whole milk, cheese, orange and tomato juice and
fish liver oils. The department said the experiments showed that even
in the daylight, persons accustomed to such diets did not have the proper
side vision to enable them to see traffic approaching from intersections.
After 43 days on the restricted diet, one subject required 10,000 times
as much light as normal to see clearly. (A.P.)

Animals Need Calcium deficiency, all too common a fault in human
Calcium diets in America, has for the first time been linked with
 certain types of paralysis in animals, says a Berkeley
(Calif.) report by Science Service. Possibly akin to certain brain hemor-
rhages in man, this paralysis is of hemorrhagic origin, says a report by
the University of California. Collaborating in the research were the
following university scientists: Dr. David M. Greenberg, Muriel D.D. Boel-
ter and Dr. Benjamin W. Knopf. Too little calcium in the blood has al-
ready been identified as cause of tetany. Paralysis, however, has not
heretofore been attributed to a deficiency of calcium, despite the fact
that it has been observed often in nature among browsing animals.

"Plant to John M. Collins, in the New York Times (December 25)
Prosper" describes the "plant to prosper" movement started in Ten-
 nessee in 1934 for farmers by the Memphis Commercial Ap-
peal. A campaign was initiated in Arkansas, Missouri, Mississippi and
Tennessee, with the slogans, "The Cow, the Sow and the Hen," "Live at
Home," and "Grow Your Own Food and Feed." Cash prizes were offered.
"Results have been worthwhile," he says, "in the belief of the sponsors.
This year 17,000 farm families were entered in the Memphis contest. Other
southern papers have taken up the idea; in the whole South, 42,000 fami-
lies this year were in 'plant to prosper' contests...The 1938 contest
competition covered an area of 392,000 square miles. It is estimated
that the families engaged in it increased their production of feed crops
of corn and other cereals and hay to the value of \$3,000,000. The in-
crease in the value of food that they canned or produced for their use
is estimated at more than \$5,000,000. Six hundred thousand acres were
planted to cover crops to protect and enrich the soil. The contest is
divided into divisions for tenants and owners and land operators..."

Pullorum Control More than 300 farm flocks, representing 50,000 birds and more than 90 percent of all Louisiana hatcheries, will be in position in 1939 to furnish baby chicks free from pullorum disease to poultry owners, Clyde Ingram, Extension Service, said recently. The Louisiana Poultry Improvement Association, composed of poultry growers and hatcheries throughout the state, is carrying on a systematic educational campaign, in cooperation with the Extension Service, College of Agriculture, Louisiana Livestock Sanitary Board and the Bureau of Animal Industry. During January, the association expects to issue a yearbook which will carry practical poultry information and list all the approved flocks and hatcheries in the state. (Hammond, La., Progress, December 16.)

Farm Program Improvement "President Roosevelt's letter to the Farm Bureau Federation convention recently reveals that the Administration will be receptive to proposals for improvement of the existing farm program," says an editorial in the St. Paul Pioneer Press (December 15). "He is correct when he says, however, that the legislation enacted last session should not be disturbed so far as the 1939 crop is concerned...The crop controls of this year suffered because of the haste with which they had to be applied. Much of the dissatisfaction with the tobacco quotas, for example, is attributable to the fact that the administrators did not have sufficient time to work them out properly, and the same thing can perhaps be said in excuse of the wheat loan regulations. The coming crop year will be the first full year of experience under the new AAA. Legislation of such major importance certainly deserves so much of a fair trial as this before being materially altered. The administration's receptiveness to constructive changes in the program, however, is commendable..."

Wax Protects Vegetables Paul Work, of the New York State College of Agriculture, in an article in the Farmer's Digest (January, reprinted from the American Agriculturist) says: "Waxes are fast coming into use to protect fresh vegetables from drying out, shriveling and other deteriorations due to loss of water. The use of waxes is inexpensive. It may be practiced on either a large or small scale. The form of waxing that appears most commonly on our markets at the present time is with rutabagas which come largely from Canada. They are dipped in melted paraffin drained and cooled. The method is a bit crude and the quantity of wax required is pretty large, although the cost is not very high. The newer developments are based on waxes in the form of emulsions which make it possible to apply evenly and thoroughly without heat and with a good finish for the job. Emulsifying is the process by which oils, fats and waxes which are not ordinarily mixable with water, are very finely divided and distributed through water yielding a milky mixture. These emulsified waxes find their principal effect in retarding drying out. In addition, they provide an attractive finish...Experiments thus far have shown that the loss of water in waxed as against unwaxed vegetables is about cut in two..."

Edible Soybeans "Finding of at least 17 varieties of soybeans which might easily be accepted for table use by the American public has broadened the possibilities for this crop becoming a more important food in the American diet," says F. J. Keilholz, extension editor, University of Illinois, in Country Gentleman (January). "A search which Sybil Woodruff and Helen Klaas, of the Illinois College of Agriculture, have been conducting since 1934 through some 500 vegetable and field types has revealed the 17 most promising varieties which might be acceptable to the American palate. Selections were made on the basis of flavor, texture and general appearance. In the case of green beans, shelling time also was taken into consideration. Six of the 17 varieties have shown such special merit that all but one of them have now been given names, whereas formerly they were known only by numbers. They are Wil-lomi (81044-1), Imperial (81780), Hokkaido (85666), Jogan (87615), a still unnamed one known as 97155 and Funk's Delicious. In addition to these six 'very good' varieties there are now 11 others which have been given a rating of 'good.' The 17 superior varieties offer a wide choice from which the investigators hope to make still more specific selections for qualities which were not considered in their early work...Green soybeans have been very successfully preserved in freezer storage. Canning and drying have not been so successful in retaining the good color and flavor of the beans. Although seed stocks of these varieties are not yet large enough for general distribution, they are being rapidly increased at various experiment stations in an attempt to meet the growing demand."

Wyoming Wool Improvement "To state that on an outfit of 40,000 range ewes the average fleece weight was increased slightly more than two pounds per ewe, or a total of more than 80,000 pounds per year seems unlikely," says Tony Felhauser, Wyoming Extension Service, in the Farmer's Digest (January, reprinted from the Sheep Breeder). "Nevertheless, this is what happened in the case of the Warren Livestock Company of Cheyenne after seven years of culling and breeding. Many other sheep outfits have cooperated in culling demonstrations since Dean J. A. Hill initiated this type of wool improvement work more than 20 years ago...In every case (in the culling demonstrations) after a period of 4 to 10 years there has been a very marked increase in average fleece weights. The fleeces were much more uniform in grade and longer of staple so that the clips are easier to sell and usually command a higher price. If a sheepman has not been following a careful culling and breeding program, he can increase the average fleece weight of his flock from 2 to 4 pounds over a period of 4 to 10 years and make his clip more uniform, if he will follow our recommendations...As a further encouragement to wool improvement work, wool schools have been held throughout the state...Finally, the thing which will probably cause many sheepmen to follow a more definite culling and breeding program is the shrinkage and grade determination work by the U.S. Department of Agriculture and the university wool department..."

DAILY DIGEST

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Section 1

December 29, 1938

ALLERGIC DISEASES

"The discovery that a well-known body chemical, called histamine, is always present in increased amounts in a special type of white blood cells of persons suffering from hay fever, asthma and the allergic diseases in which persons are sensitive to certain articles of food, drink or other factors, was reported yesterday to the American Association for the Advancement of Science by Dr. Charles F. Code of the Mayo Foundation," says William L. Laurence in the New York Times. "The discovery, it was stated, opened the first chemical approach to study of the mechanism of the mysterious and troublesome allergic diseases, which afflict more than one-tenth of the population of the United States...For his discovery, hailed as an important advance in medical science, Dr. Code, a research physician of 28 years, has received the Theobald Smith medal, which carries with it a cash prize of \$1,000..."

MEASURES SYSTEM

Delivering his farewell address as president of the American Physical Society, Director Lyman J. Briggs, of the Bureau of Standards, yesterday said: "We have the anomalous situation in this country of a legalized system of metric weights and measures which is used for scientific purposes and a customary system of weights and measures which is in common use but has never been formally legalized." He pointed out that Congress, when it made the metric system legal in 1866, defined the meter in terms of the inch (an inch equals 0.03540005 plus meters). "It is obvious," said Dr. Briggs, "that it is not practicable to lay off this incommensurable decimal fraction on a meter bar, so that this relation defines a theoretical inch rather than one that can be derived with exactness from the meter bar..." (Washington Post.)

CHLOROPHYL DISCOVERY

Drs. O. L. Inman of Antioch College and Albert F. Blakeslee of the Carnegie Institution announced to the National Academy of Sciences yesterday the production of a new kind of chlorophyll in jimson weed grown from X-rayed seed, says a Richmond report by a Washington Star correspondent. The significance of the finding, it was pointed out, rests at present chiefly in its implications. It may represent a step toward the synthesis of chlorophyll itself and an understanding of how it acts. There is also a possibility of producing it in other plants by similar seed X-ray treatment.

Animal Industry Report Continuous progress in the reduction of livestock diseases and in the improvement of types of domesticated animals was recorded in the annual report of the Department of Agriculture's Bureau of Animal Industry, just made public, says a report in the New York Times. Dr. John R. Mohler, chief of the bureau, emphasized in the report that this country had remained free of foot-and-mouth disease in a period when there had been extensive outbreaks in many European countries with which this country had trade relations. Other contagious foreign livestock diseases which had been kept out of this country were rinderpest, contagious pleuropneumonia and surra, he stated. Much progress also has been made against bovine tuberculosis, the report said, and the chief fight now is against Bang's disease.

Agricultural Engineering The December issue of Agricultural Engineering contains the following articles of interest to the Department: Water and the Land, by S. H. McCrory (chief, Bureau of Agricultural Engineering); The Use of Vapor Spray in Plant Disease Control, by R. M. Merrill (B. A. Eng.); Problems of Flow of Water of Special Concern to Agricultural Engineers, by Fred C. Scobey (B. A. Eng.); Erosion Control on Steep Irrigated Slopes, by Harry E. Reddick and John G. Bamesberger (Soil Conservation Service); and an editorial, Agricultural Gold Bricks (combatting the human parasites of agricultural progress).

Cotton Classing W. B. Lanham, of the Bureau of Agricultural Economics, reports in the Agricultural Situation (December): "Through early December, 308 cotton communities had been approved as eligible to receive the new cotton classification and market news services authorized at the last session of Congress. Arkansas led all other states with a total of 56 organized communities meeting qualification requirements. Second was Texas with 55. Georgia--long a stronghold of one-variety community development--ranked third with 50...The 308 organized cotton improvement communities report a total of about 450,000 acres planted to their adopted varieties. The extension of cotton classification and market news services to growers is part of a general campaign to improve American cotton. Apparently the campaign is bearing fruit, since 54 percent of the cotton ginned to October 1 this year was 1 inch and longer in staple length, as compared with only 33 percent during the like period in 1937. The increase in the proportion of long-staple cotton this year was due in part to favorable weather conditions and fiber developments, but a part of the gain must be attributed also to the South-wide trend toward planting improved varieties of cotton..."

Dairy Statistics Since the collection of production statistics on manufactured dairy products was transferred to the Division of Crop and Livestock Estimates last January, the division has entered into cooperative agreements with California, Oregon, Wyoming, Idaho, South Dakota, Oklahoma and Pennsylvania, for collecting data. (B.A.E. News, Dec. 15.)

Industrial Research Cooperation between industry and government in "socially useful" industrial research was urged recently by Richard C. Patterson, Jr., Assistant Secretary of Commerce, as the key to the creation of millions of new jobs and a raised living standard through development of new products and low-cost necessities and comforts. Mr. Patterson, who is a member of the National Economic Committee, cited the research activities of private industry and the National Bureau of Standards and other government departments. "Research helps both industry and government in the job of building America," he said. "And by studying our social needs, government can direct its activities to assist American industry in supplying the most urgent needs of our people. Further aid might be rendered by encouraging a greater coordination of scientific and industrial research..." (New York Times.)

Potash Export Association "Three of the potash producing companies of this country have formed an association to promote the export end of the domestic potash industry," says American Fertilizer (December 10). "Papers have been filed with the Federal Trade Commission by the Potash Export Association, Inc., to handle export of potash salts (potassium chloride, potassium sulphate, potassium magnesium sulphate, kainit and manure salts) under the Webb-Pomerene export trade law...Under the law, the association is exempt from anti-trust laws for its export business, provided that there is no restraint of trade within the United States or restraint of the export trade of any domestic competitor."

Iowa Blue Vein Cheese A patent on the method of making "Iowa blue vein cheese" has been awarded by the U. S. Patent Office to the Iowa State College Alumni Association, says an Ames report in the American Produce Review (December 14). The blue vein cheese is a Roquefort type, similar in flavor and texture to imported varieties and the time required for curing is reduced from 9 to 12 months to 2 to 4 months. The patented commercial method of producing a Roquefort type cheese is held by two Iowa State College dairy industry men: C. B. Lane and B. W. Hammer.

Waterfowl Protection "It is disquieting and discouraging to note, from time to time, the shameless efforts that are made to discredit and defy the regulations made by the Secretary of Agriculture to preserve from extinction the waterfowl of North America," says an editorial in Nature Magazine (January). "We do not refer alone to violations by individuals...but to those well-planned efforts to defeat justice that come from organizations that are able to retain legal talent...During the past year, several noteworthy examples of shameful attempts to cripple the Department's administrative efforts to help the waterfowl have been staged. An important case was that of the Cerritos Gun Club, and associated corporations, in an appeal from the decision of the District Court of Southern California. The appellees were wardens employed by the Biological Survey...The main issues involved the right of the appellants to protect the value of their investments, which had

been injured by the regulation forbidding the use of bait to lure the waterfowl to their death...It is sufficient to state that the government won the case. Thus is the right of the Department to defend the waterfowl again reaffirmed..."

"Size of Flock" "What is a commercial poultry flock? This question can best be answered by the Census 'poultry by size of flock' figures," says Z. R. Pettet, chief statistician for agriculture of the Bureau of the Census. "As the magnitude of operations is shown by 12 size groups, each person can make a commercial division for himself for marketing analysis and research purposes. The basic data are so essential that the Division of Crop and Livestock Estimates of the U.S.D.A. paid a large part of the cost of these tabulations for 29 states for 1935..." In compliance with numerous requests, Director W. L. Austin of the Bureau of the Census announces that the bureau has issued a North Carolina leaflet similar to the first series of releases, with Georgia and the East South Central States soon to follow. (American Poultry Journal, January.)

Blue Ridge
Parkway

Isabelle F. Story, National Park Service, in Planning and Civic Comment (October-December) describes the Blue Ridge Parkway. She says in part: "Acquisition by the States of North Carolina and Virginia of a broad right-of-way for transfer to the Park Service is obviously important in conserving the kaleidoscopic pattern of roadside types along the parkway. The width of taking varies from 200 to 1,500 feet in accordance with the requirements. Augmenting the outright purchase of parkway lands are occasional scenic easements. Through such agreements, which are applied almost solely to agricultural sections, the abutting owner agrees not to place sign boards, commercial buildings or refuse within sight from the drive, but he retains free use of his lands for farming. As a further measure to control the rural picture, those parkway lands purchased outright, but which are suitable for continued agricultural use, will be leased by the government to the nearby farmer...The Blue Ridge Parkway might more accurately be referred to as a park and parkway system. The concurrent development of parks to the side into which the tourists may withdraw is no less important to its full functioning as a new type of tourist facility. These park expansions are planned at intervals of 20 to 30 miles and the boundaries will conserve scenic areas several square miles in extent...The National Park Service and the Bureau of Public Roads see the Blue Ridge project as an elongated park for the leisurely vacationer."

S.C. Dairy
Bull Plan

"A worthwhile example of businessman-farmer cooperation in the development of a sound agriculture for the community is the farm dairying project in Spartanburg County, South Carolina, sponsored by the agricultural committee of the Chamber of Commerce," says Extension Service Review (December). "The committee raised sufficient money to finance the purchase of 10 outstanding dairy bulls, one for each of the ten townships of the county. Through cooperation of the Extension Service, meetings were held in the townships..."

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Section 1

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"POSTALIZED"

R.R. RATES

An Interstate Commerce Commission study and report on the soundness of proposed "postalization" of rail passenger rates yesterday was requested by Chairman Wheeler of the the Senate Interstate Commerce Committee. In a letter to Chairman Walter M.W. Splawn of the Interstate Commerce Commission, Senator Wheeler sent figures which he said "would indicate that the railroads can be profitably operated with postalized rates." The plan, advocated by John A. Hastings, former state Senator of New York, and recently injected into proposed railroad legislation discussions, would establish rail fares according to zones in a manner similar to postal rates, without regard to distance. (Washington Post.)

NEW ELECTRON

MICROSCOPE

A new microscope which magnifies an object 1,000,000 times and which has made certain disease viruses visible for the first time was demonstrated yesterday before the American Association for the Advancement of Science. Dr. V. K. Zworykin, of the Radio Corporation of America, showed the instrument. This electron microscope is expected to be one of the most powerful tools in finding and curing the diseases caused by the viruses, such as the common cold, infantile paralysis and smallpox. Further studies may enable scientists to differentiate between viruses in the same way that they now recognize different kinds of bacteria with ordinary microscopes. (Associated Press.)

NEW DISEASE

FROM TICK

A new disease in humans, as yet unnamed, has been discovered after three years of research by United States Public Health Service scientists, it was announced yesterday. The infection, caused by a recently recognized virus, has been traced to the Rocky Mountain wood tick, a species native to Montana. The identity of the fever has been linked with the little known "Q" of Australia, found there among dairy farmers and workers in abattoirs. Drs. Gordon E. Davis and Herald R. Cox, Public Health Service bacteriologists, started research on this disease in 1935. Dr. R. E. Dyer, senior surgeon of the service, has reported that a member of the National Institute of Health contracted the disease while doing research on the virus in the laboratory at Hamilton, Montana. (Washington Post.)

Ready Mixed

"During the past two decades, the manufacture of Poultry Feeds ready mixed poultry feeds has assumed tremendous importance in the commercial feed industry," says W. B. Griem, Wisconsin Department of Agriculture and Markets, in Poultry Tribune (January). "...A study of the annual feed inspection bulletins, issued by almost every state, makes it evident that label statements are substantially maintained in ready mixed poultry feeds. These public records show that, with reasonable care, any manufacturer can meet the requirements of the feedingstuffs laws...From the poultryman's viewpoint, it would be of great benefit to have the actual biological feeding value of the ready mixed poultry feeds easily and accurately determined...Unfortunately, such activities in connection with feed regulatory service are not at present feasible. The prohibitive costs make such analyses of actual biological feeding values impractical...The state and federal experiment stations are doing extensive experimental work which is rapidly unfolding the complexities of poultry nutrition. Their findings and recommendations are, of course, all public and commercially adopted for the improvement of ready mixed poultry feeds...The expanding use of these mixed feeds for poultry would indicate that, in general, such feeds are entirely satisfactory. With the increasing understanding of poultry requirements, it is to be expected that ready mixed poultry feeds will be formulated to embody the newest findings."

Hereford Ranch

Western Livestock Journal (December 13) says: "An Endowment article in this issue tells of the decision of Henry P. Crowell, owner of Wyoming Hereford Ranch, to endow that famous Hereford breeding establishment for a period of 25 years after his death. This will be good news to everyone interested in beef cattle improvement...All too often, the death of an owner means that great breeding herds in America are scattered to the four winds, with the result that much of the constructive program is lost." The article says in part: "This is the first time that a Hereford herd has been endowed, although similar provision for herds of other breeds of livestock has been made. The Sni-A-Bar Foundation for Shorthorns in Grain Valley, Missouri, was established by the late W. R. Nelson; and a herd of registered Guernseys has been endowed by J. C. Penny. It is understood that the property and herd of the Wyoming Hereford Ranch will be operated as a non-profit institution...This ranch is one of the three oldest herds of registered Herefords in the United States from the standpoint of continuous operation...During the past year it registered 1,132 calves."

Bait Spreaders

Pests have made necessary several new pieces of farm equipment in the past few years. Lightweight rubber-tired bait spreaders (for poison bait) have come on the market as a result of the grasshopper scourge. The spreaders are pulled by truck, car or tractor. (Farm Journal, January.)

Safety and
Night
Blindness

Dr. J. F. Neumueller, American Optical Company, author of "Night Blindness and Safety" in Safety Engineering (December) reports that a new test has been developed which determines quickly and easily the defect of night blindness. "The subject is seated in a dark room facing an instrument, his eyes fixed on a strong light in the upper part of it. This light bleaches out the visual purple in his retina. After a three minute exposure, the bright light is turned off and the subject is apparently in complete darkness. However, when the bright light is switched off a very weak test light is automatically switched on. The test light becomes visible to the subject only after sufficient regeneration of visual purple. The time of regeneration should not exceed five minutes. If a longer time is needed, the subject is considered to have night blindness. There are many applications for such a test in industry and as a safety precaution in transportation...Drs. R. C. Wise and O. H. Schettler, reporting in the Ohio State Medical Journal, state that the efficiency of color matchers in one large plant was increased 75 percent by feeding those deficient in vitamin A, capsules containing carotene-in-oil, a specific used in the prevention and cure of nutritional night blindness. In addition, the workers reported much more eye comfort and in many instances improvement in general health."

Poultry
Mortality

F. B. Hutt, Department of Poultry Husbandry, Cornell University, writing in Country Gentleman (January) on poultry mortality, says in part: "It seems probable that the permanent remedy for the mortality problem in poultry will be to breed stock resistant to neoplasms. To determine the feasibility of such genetic control, an experiment was begun with White Leghorns at Cornell University in 1935. From 1931 to 1934 pullet mortality during the first laying year varied from 41 to 44 percent among birds that were well culled when housed in the fall. In the experiment...no culling is practiced, but at housing time any families having fewer than 10 daughters from one hen are eliminated, because at least that many are necessary for an adequate test of their inheritance. Every bird dying after six weeks of age is examined and the cause of death recorded....During the test period in 1935-36, mortality in the first unselected population, which lacked any breeding for resistance to disease, was 64 percent. In January 1936, when breeders were chosen to produce the first selected generation, preference went to those hens used in 1935, among whose progeny there was the lowest mortality up to January 1936. In other words, the females were judged not solely according to performance and pedigree but even more according to the performance of their offspring. This type of selection is something new to many poultrymen, but its use is increasing."

Farm Eggs

Farm egg production made a new high record for November 1. Even though the number of layers per farm was below the November 1 average for the 10 years 1927-36, total egg production was about 12 percent above the previous high levels of November 1931 and 1937 and about 23 percent above the 10-year average. Records were equalled or broken in all regions of the country. (Agricultural Situation, December.)

Sorghums in the North "Nebraskans are predicting that approximately 1,000,000 acres will be planted to sorghum grains in that state in 1939," says an editorial in the Sioux City Tribune (December 23). "More than 500,000 acres of sorghum grains were planted there in 1938. The yield of both grain and forage has been such as to inspire great confidence in the crop...Two drought experiences in 1934 and 1936 rekindled interest in sorghums. It was noted that where patches of sorghum had been planted the crop came through the dry years better than any other, yielding both grain and forage. Heat, drought and blistering winds did not destroy the plants...As yet there is no large commercial market for either the grain or forage, but that may come. Anyhow, farmers hereabouts are primarily interested in producing something that can be consumed on the farms. Further experimenting may be needed to indicate which varieties are best adapted to this particular region. But the one outstanding fact is that sorghums can be grown north of Kansas, and that Nebraska, Iowa and South Dakota can produce this crop successfully. In all probability sorghums will have a permanent place in the agriculture of this area henceforth."

Grasshopper Campaign The Kansas City Times (December 22) commenting editorially on the Department's grasshopper survey (see Daily Digest, December 19), says in part: "This reduced menace is due in part to weather conditions...But in large part it is also due to the extensive poisoning campaign carried on in a gigantic effort by western farmers this year...The agriculture experts, who know pretty well what devastation grasshoppers can work in a given field, when they are present on its borders and permitted to enter it undeterred, estimate the savings to crops through the campaign at \$176,000,000. In Kansas grasshoppers caused about \$7,000,000 damage in 1938, but crops worth \$37,000,000 were saved from them. In Missouri the damage was over \$2,000,000 but the saving was over \$10,000,000. Farmers in the West are thoroughly convinced of the efficacy of the poisoning program now, and the work will go on next year on an even larger scale."

Vermont Country Gentleman (January) describes editorially the Health Plan Townshend, Vermont, Health Council. "In Townshend, a farm community of about 625 population," it says, "a health council was set up. A country fair was decided upon as a means of raising funds. The resources were those of every community--the churches, grange, American Legion, 4-H Clubs, owners and breeders of horses, merchants, etc... For four years Townshend has raised money in this way to guard the health of its children, with each dollar matched out of a trusteed fund available in the county. Doctors, hospitals and dentists responded to the spirit of cooperation, both in services and in charges. During the first year 27 children had tonsil operations. Seventy-nine children had teeth defects remedied. Children were fitted with needed glasses. Immunization against diphtheria was provided and baby clinics held. During the winter the council furnishes hot lunches to every school child...All the work of the Health Council is carried on by people who take time from their own jobs for it, without pay..."

